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ROBERT COLLYER.

MR. COLLYER is a large, strong, healthy man; his face will impress the reader with the idea of constitutional vigor, as well as determination and resolution. He is large in body, broad and deep in chest, hearty, zealous, earnest, and strong. He often speaks publicly, and with apparent pride, of having been trained to blacksmithing. He has the bodily strength and courage which served

to make him a success in that direction, and bringing such constitutional vigor to the pulpit, and with it that strong common-sense which belongs to his nature, and a kind of blunt courage that enables him to say what he thinks proper to say before a congregation, he strikes right home at the truth as he understands it.

The writer has seen him but once, ten years ago, in his pulpit in Chicago. The opening prayer was most remarkable. Every sentence seemed an honest outburst of human want and hearty confidence in the Father, and he talked to God as if he were well acquainted with Him, not as if he were standing at a great distance and using "regulation" language, but as friend to friend. As near as we can remember, the prayer closed in this way: "And finally, our Father, when we are done with the struggles and labors, the hopes and fears of this life, take us to Thyself, and make the best of us."

Mr. Collyer has an intellect remarkable for its power of being direct. His large perceptives give him a quick sense of things and qualities. His memory enables him to hold the knowledge he has acquired, and to have a perfect command of his experiences; whatever has happened to him, or occurred within his range of knowledge, is available at all times; hence he can enrich his discourse with those autobiographical statements which give vividness to truth.

His Comparison is remarkably strong; being larger than Causality, it gives prominence to the center of the forehead, and a peculiar appositeness to his illustrations. Though he can not be called a flowery man, there is such fertility in statement and wealth of illustration that the hearer is kept interested.

His judgment of character is rarely equaled; he understands men in the abstract, and when he meets a stranger, he seems to look him through, knows how good or bad he is, how much can be made of him—whether he is proper material for improvement.

He is sometimes led by his generous impulses to do more for persons than they deserve, and thus becomes their burden-bearer. It is sometimes said of a person, he is too honest, too confiding, too tender-hearted, people abuse his confidence—this may to some extent be applied to him. He does not look for evil in men; he looks for the good; hence he sometimes disregards his clear impressions of their true character.

His Language is uncommonly large; he has a singular power in the use of words, and his thoughts being specially clear, and his purposes direct, he has nothing to conceal, and therefore he selects plain words of Saxon origin, in which to clothe his thoughts. We have counted as many as eighty words of one syllable in a hundred words in his writing. He rarely uses "words of learned length and thundering sound;" never hides dullness behind long words, but lets the light come streaming through in small, short, curt words. His style as a speaker impresses the listener with the idea that he wants to say all that is true of a subject, and to say it in as few words as is possible, words as direct and open and clear as Language permits.

His Benevolence is evidently strong; from the root of the nose upward the head is high; the organ of Benevolence being located just under the hair in the front part of the top-head, shows ample development, and accounts for his genial sympathy, and that broad philanthropy which characterizes all his work.

He is not an imitator; copies no man. He tries to act up to his convictions, and to use the right word in the right place, without "softening the truth or smoothing his tongue," or trying to glide into the habits and usages of other people, except when the line of truth, as he understands it, lies in that direction.

His head is broad from side to side, showing manly courage, force of character, power to grapple with difficulty, and make his mark wherever he moves.

He is strong in his opposition, but seeks to avoid contention, and frequently carries himself in such a way as to win opponents over to his side without an argument, and without any manifestation of opposition on his part. The impression which he makes upon an opponent is, that there is really not so much difference between himself and Mr. Collyer as he had supposed, and that though they may not harmonize in theory, they will seem to agree very well in practical matters, and the man will separate from him with a feeling that he likes Robert Collyer anyway, and wishes he belonged to his party. He has a great, generous, good-natured way of trying to find out which way the grain runs in men's constitutions, and he will at least make a man like him, if he does not like his doctrine.

He has strong Friendship, and is able to awaken friendship in others; people may admire his talents, and his way of treating subjects; but beyond and superior to all this, people have a personal regard for the man: they believe him honest, sincere, a true friend, as open as midday; if they don't like what he teaches, they have this consolation, that there is nothing concealed, that the strongest points are stated.

He is fond of children, and young people are his partisans; common people are not afraid of him, especially children, and while men regard him as a stronghold, and a great helper in emergencies, the weak and the young, and the timid and the diffident somehow feel that there is no occasion to be afraid of him; they come to him as to a friend and ask his advice, and lean against him, and he bears their responsibilities and their troubles bravely.

He takes his intellect from his mother, also his sympathies and affections; and the stalwart strength, the determination, the pride, and the force belonging to him, is from his father. He is intuitive in his intellect, catches his best view of truth instantly, and is able to present it without hesitation or delay. He would be a royal witness on the stand, would remember the facts, and would dare to state them, and would do it with such clarity and directness as to convince everybody of his sincerity and his truthfulness.

He has a strong degree of Hope and reverence, anticipates much, trusts much. His Faith is not very strongly marked; hence he seeks to seize upon the great cardinal truths, and does not mince and nibble with the vague and uncertain side of subjects. He does not hunt for mystery, but hunts for open truth.

He has mechanical judgment, a fair degree of financial capacity, and a tendency to take hold of life earnestly, directly, sincerely, heartily, and bravely. S.

This eminent representative of the Unitarian pulpit is well known as the "blacksmith preacher," having when a young man spent twelve years at the forge and anvil. It is said that a gentleman once stopped his horse near a smithy in a Yorkshire village. On entering it,

he hardly arrested the attention of a boy who seemed to be absorbed in the work of blowing the bellows. Closer observation revealed the presence of a book, placed on a shelf near the lad's head—with its pages kept open by two bits of iron. Each time he brought down the bellows or released it, he appeared to catch a sentence from the book.

That boy was Robert Collyer, who was born December 8, 1823, at Keighley, a village in Yorkshire, England. His father was an uneducated blacksmith, though regarded one of the best workmen at the forge in Yorkshire. In 1844, while working at his trade, without warning, he fell dead.

Robert was sent to school quite early in his childhood and remained four years, and this was all the schooling he ever had. He quickly learned to read, and soon became thoroughly conversant with the few books owned by his parents, viz: the Bible, "The Young Man's Companion," "Pilgrim's Progress," and "Robinson Crusoe." His father was then living at Fewstone Parish, where the children of the poor worked in the linen factories, and from eight or nine to fourteen Robert's life was spent in this way.

Then he left the linen factory and was apprenticed to a blacksmith of Ilkley; and to the twelve years spent at the Ilkley forge, he doubtless owes a strength of lungs and a robust frame, exceedingly rare in the clerical profession. In a recent address he alluded to his health as "brutal." While at Ilkley all the money he could save was invested in books, which he kept on a shelf in the smithy; and as he blew the bellows he kept an open volume before him, and snatched now and then a sentence, as has been described. He made many a good horseshoe, a feat of which he is still proud, and during that apprenticeship his future was decided.

In 1847, influenced by the Rev. H. H. Bland, now of Montreal, Canada, who at that time made a deep impression on the Yorkshire men, Mr. Collyer was converted to Methodism, and in the following year, while still wielding the hammer at Ilkley on week days, he attended the neighboring Methodist chapels on Sundays. His first experience in preaching was gained in this manner, at the same time he continued his studies assiduously, and gradually prepared himself for his life-work as a minister.

In 1850 he concluded to emigrate to America, and it was on the 11th of May that he landed in this country accompanied by his wife, and a week later went to work at his trade in Shoemakertown, Pa. Having brought letters from England introducing him to the Philadelphia Conference, he was granted a license as a local preacher. At Shoemakertown, as at Ilkley, he pursued his trade as a smith on work-days, and on Sundays exhorted in the little chapels wherever he could find an audience.

It was customary then for local preachers to support themselves mainly, and for the ten years he thus labored, what salary he received from the Conference amounted, as he has himself said, to "one almanac, various little household necessaries, and ten dollars in money."

During the latter part of his blacksmith life he became acquainted with Lucretia Mott and Dr. Furness, and found that certain views in theology which he had acquired were similar to theirs. Dr. Furness invited him to preach in his pulpit, and by doing so Mr. Collyer incurred the charge of heresy, which was made in January, 1859, against him, and the Conference refused to renew his license as a preacher. However, in February of the same year he was commended by Dr. Furness to the First Unitarian Society of Chicago, which was without a minister. He went to Chicago and was invited to supply the pulpit the first Sunday after his arrival. The church was then disturbed by political differences, and some thirty or forty of the members withdrew, who invited Mr. Collyer to become their preacher. Thus the Second Unitarian Society of Chicago was formed, and grew so rapidly that a new edifice was built, which has been known widely as Unity

Church, the congregation becoming one of the largest and most flourishing in the North-west.

Mr. Collyer was regarded one of the features of the great Lake city, and inseparably identified with Unity Church. But after twenty years of hard work in connection with that society, he hesitatingly decided to accept the urgent invitation of the Church of the Messiah in New York city, and last summer he removed hither to enter upon the new connection. It will be remembered that the late Dr. Osgood, previous to his withdrawal from Unitarianism, graced the pulpit of this church with his eloquent and scholarly presence for many years.

While Mr. Collyer was settled in Chicago an interesting incident occurred:

One of his parishioners happened to visit Ilkley, the birth-place of his pastor. That little English village had grown to be a considerable town. Low, thatched houses had made way before fine mansions, and the smithy in which the boy scholar had worked and studied still existed, but the day of its disappearance was very near. The visitor inspected with some interest an old anvil standing in the shop.

"How long has that anvil been here?" he asked of the proprietor.

"Why," said the blacksmith, "it must have been here nigh thirty or forty year."

"Well," said the gentleman, "I will give you twice as much for it as will buy you a new one."

"Certainly" replied the puzzled smith, "but I would like to know what you want with this anvil."

"I will tell you. There was formerly an apprentice in this shop who used to work on it. That boy has now become a prominent man. Thousands love and honor him as a friend and a teacher, and I wish to carry this anvil with me to America, as a memorial of the humble beginning of his life."

The bargain was completed, and the anvil is now carefully preserved by the society of Unity Church.

SELF-CONCEIT AND SELF-ESTEEM.

NOTHING is more generally disliked, or more instinctively resented, than self-conceit in another. The self-conceited person is vain, and vanity always conveys the idea of aggressiveness in small things. Complacent with his own position, proud of his own performances, and absorbed in his own plans, the self-conceited man often awakens the indignation, and sometimes excites the contempt, of those who are in his company. In his talk, himself plays the largest part. He can not help always putting himself to the front. If he have ever really accomplished anything meritorious, he tells it over and over, until its original lustre is lost. He frequently possesses excellent qualities, but the conspicuous flaw in his character neutralizes their goodness, and they are apt to be overlooked.

Strangely enough, self-conceit is much more tolerable and much more easily pardoned in a man than in a woman. Whatever else she may possess, we demand of woman a certain coyness, a modest reserve, a dignified withdrawal of her claims; and, lacking these, her charms are little worth. The violet, the rose, the lily, the heliotrope, the mignonette, all beautiful, are all fragrant, and their perfume is as dearly loved as are their exquisite shapes and their dainty coloring. The dahlia and the sunflower have their admirers too; but they are few.

Self-esteem is very different from self-conceit. Esteem implies judgment, and presupposes belief in one's powers and abilities. The person destitute of self-esteem goes out to life's battles poorly equipped. There is a modest confidence in one's intentions, and in one's talents, without which it is well-nigh impossible

to attain success in any enterprise. The first should be repressed in children, and its earliest signs watched for and subdued, while the second should be cultivated and encouraged. How unhappy is the timorous, diffident, doubting soul, who is deficient in self-esteem, who underrates his advantages, fails to perceive his opportunities, and goes limping through the world as if he were apologizing to everybody he met for being in it at all.

Allied to self-esteem is self-respect. Thoreau said well, with that straightforward common-sense which distinguished him, that a man could afford to lose the respect of his comrades and kinsmen if he could but continue to respect himself. There is truth in this. What we are to our fellow-men, we are not always in God's sight; but there come to us all honest hours, hours of meditation, hours of keen insight, and stern examination, when only God is near. If, then, we can respect ourselves in moments of contrition and penitence—but of trust and hope—we are happy indeed.

GIFTS OF HEALING.

"Fetter strong madness with a silken thread,
Cure ache with air, and agony with words."

THE imposition of hands for the purpose of performing miraculous cures has been practiced from time immemorial, and faith in a psychical power possessed by certain privileged persons is old as the world. Chaldee and Brahmin, pagan and Christian, have alike believed in the virtue of a touch, and whether we go with the blind man to the healing hand of Vespasian, or press the hem of the Christ-robe, with the trembling daughter of Judea, we touch a vesture of historic fact infolding a body of divine truth eternal as the ages. Through confusion of creeds, the strife of tongues, the crush and crowd of earnest seekers after a supreme revelation, we are pressed against a succession of recurring facts which push us almost unconsciously toward their absolute and governing law. Beginning with the hieroglyphics of the far East we find the earliest records of this "miraculous gift" on monuments of pagan deities, where the god is often represented with outstretched hands (bending over the sleeping form of some sick suppliant), rays darting from each finger-end—evidently a rude representation of the "magnetic aura" or "od emanation" of the modern healer—while the soothing application of what are now called "passes" was certainly practiced at a very remote period. Celsus, a Roman physician, states that the old Greek father of physic, Asclepiades, practiced light friction as a means of inducing sleep in insanity, and adds, "by too much friction there is danger of producing lethargy." Hippocrates used this method as a means of modifying the condition of diseased organs, and it is well known that Phyerus, king of Epirus, cured disordered spleens by touching the affected part with the big toe of his right foot, claiming for his reward the white cock sacrificed to Æsculapius. Later on Apollonius effected a considerable number of cures by means in which magnetism seems to have had a share, and Vespasian was equally induced to assume the part of a thaumaturgist. Of this emperor it is reported that he restored sight to a blind man by moistening his eyes with saliva, and to a lame man the use of his feet by treading hard upon them.

"It is not art which makes thee excel," said Plato, "but a divine power which moves thee, such as is in the stone which Euripides named the magnet, and some call the Heraclian stone, which attracts iron rings."

This idea seems to hold in itself a germ of the faith which has since struck such deep root in the palaces of modern kingdoms, a faith in the divine right of kings to cure all manner of diseases by a touch

of the royal person. From the high north, where King Olave, the saint, performed the ceremony of the imposition of hands, it was carried to England, France, and even the courts of Germany. In Hapsburg the goitre was so often removed by the touch of royal hands that the complaint came to be called the "king's evil." In France each monarch, on ascending the throne, received at the consecration the secret of the *modus operandi*, and the sacred formula, for here also the spoken word went hand in hand with the magic touch. Here, again, they essayed to "cure ache with air, and agony with words," uttering the ancient phrase, "*Le roi te touche, Dieu te guêrisse.*"

Plutarch speaks of magnetic cures by touching with the feet, while Plautus exclaims, "What if I were to touch him at intervals so that he should fall asleep!" On the foundation stones of every religious faith are recorded the miracles of healing. The "gift" of the ancient Jew is the heritage of the modern Gentile, and the divine right of kings walks our democratic streets to-day in the person of the magnetic healer, who is consulted or derided according to the individual faith of our skeptical age. Most intelligent persons admit that these miracles, so called, are performed through the agency of magnetism; but they have little idea of the *modus operandi*, and can give no reason for the faith that is in them. Many who would apply electricity from a battery to a diseased organ, would laugh at the idea of submitting to the touch of the human hand; and any effect produced at a distance, by the simple action of a magnetic pass, would be considered a humbug of jugglery. Men of science have been slow to recognize the curative properties of the magnetic agent, although, from time immemorial, certain enigmatical phenomena have been observed, which were produced by the magnet on certain patients, and especially on somnambulists. In the last century, and probably earlier, it was discovered that similar effects could be obtained without the magnet, and with the hands alone. It was not possible (says Von Reichenbach) in the state of knowledge hitherto attained, to discover any sure connection between the power of the magnet and the analogous one of the human hand or foot. The consequence was that all natural philosophers laid aside or neglected the subject, and did not admit it to a place among the physical sciences. For eleven hundred years the Chinese have believed in an inherent power possessed by every human being called *yu-yang*, which is identical with an universal yu-yang. According to this view each person endowed with the proper ability can diffuse a portion of it over others so as to heal their infirmities. This yu-yang is but another term for the "etherium" or "vital air" of the Greeks, to which the poet refers in the expression, "cure ache with air," while the same potent breath blows through the mists enshrouding our modern philosophy, powerful as of old, with the od-force of von Reichenbach, the magnetism of Mesmer, the physical electricity of Du Bois Reymond, until it reaches the laboratory of Prof. Faraday, who concludes that "electricity, galvanism, magnetism, etc., are but modifications, or the names for modifications, of but *one* principle in nature." Prof. Faraday having simplified the subject and brought us back to the universal "air" of the ancients, we are prepared to examine into the nature and action of the magnetic pass, and understand the natural law controlling this "gift of healing."

Let us admit there is a force powerful enough to kill a man, when sent in a stroke of lightning; that the same force may also cure a man if the shock be less severe. Can we deny that such cases are on record? They are as common as life and death. We accept them as decrees of Providence working in harmony with the laws of nature. We say, this man met his death at the hand of Heaven, or, our friend was cured by the finger of God, who sends forth His lightning to the ends of the earth; but when similar effects are produced by the

hand of a mesmerizer, we are slow to believe. It is miracle, or humbug. We watch the gardener promoting the growth of his flowers by mild shocks of electricity; we see the same flowers withered at a single stroke from a summer cloud; but we fail to see that parallel processes are continually going on in the little world within us, in that microcosm called man, and similar forces are working.

Among the first of our conservative electricians in this field was Galvani. He asserted that all animals were endowed with an inherent constitutional electricity secreted by the brain and distributed through the nervous system, the principal reservoirs being the muscles, and each muscular fiber a sort of leyden-jar. But Matteuci concludes the origin of the current to be in the muscle itself, a result of chemical action. According to Du Bois Reymond the nerves are possessed of an electro-motive force which acts in harmony with the law controlling the muscles; while still in connection with the muscles they simply play the part of an active conductor. After various experiments to determine the direction of the current, he concludes it to run from the *shoulder to the hand*.

Now that we have a powerful force at hand, and our subtle theories at our finger-ends, we are prepared to marshal our fugitive ideas and grapple with the subject.

Admitting that this force runs from the shoulder to the hand, we are beset by a host of questions: How can we prove that it escapes from the fingers, and what law controls its action at a distance? Why is the toe as effective as the hand? etc. In answer to the first query we must try a simple experiment. If we suspend a small slip of paper by a silken thread, and excite the resinous electricity in a piece of sealing-wax, and apply to the paper, it will be attracted. If we quietly approach the tips of our fingers toward it, the same effect will be produced; if we touch the paper it becomes charged, and if we shortly afterward point our hands toward it, it will turn round as if repulsed. Here we have our force evidently escaping from the finger, and acting at a distance upon an opposite body; but to clearly understand the mode of escape and manner of action, we must apprehend what is termed, in electrical parlance, the "law of points." Observing the general dictum that "electricity is attracted to and flows from a point," we are prepared to hear Prof. Maxwell's elucidation of this law, which brings us to the point of our vague speculations and random remarks, and furnishes the pivot upon which the whole argument in favor of magnetic healing revolves.

"When a conductor having a sharp point is electrified, this point is surrounded by particles of air charged with electricity of the same kind with its own. The effect of this charged air round the point is to relieve the air at the point itself from part of the enormous electromotive force which it would have experienced if the conductor alone had been electrified. In fact, the surface of the electrified body is no longer pointed, because the point is enveloped by a roundness of electrified air, the surface of which, rather than that of the solid conductor, may be regarded as the outer electrical surface. If this portion of air could be kept still, the electrified body would retain its charge, but the charged particles of air, being free to move under the action of electrical force, tend to move away from the electrified body because it is charged with the same kind of electricity. The charged particles of air, therefore, tend to move off in the direction of the lines of force, and to approach those surrounding bodies which are oppositely electrified."

Hence, we conclude, there is a force generated in the human system flowing from the fingers, toes, hair, lips, and all points of the body acting upon other bodies in obedience to the "law of points," producing sudden and powerful changes in the physical structure, and sometimes working wonderful cures, erroneously called miraculous.

JULIA M. HOLMES.

STUDIES IN COMPARATIVE PHRENOLOGY.

CHAPTER III.—*Continued.*

FRONTAL BONE OF THE CARNIVORA.

WE shall find in the frontal bone of carnivorous animals a character of organization very different from that which we have met with in those animals just considered. At first sight this bone in the ape may appear to possess a close analogy to that of man; but it is far from showing in some points the same development as that of certain carnivora; the dog, for example, which appears to surpass most species of the ape very much in intelligence and sagacity.*

Fig. 73.—FRONTAL BONE (CAT), EXTERIOR.

The frontal bone of the carnivora is constantly formed of two symmetrical pieces. Their juncture usually takes place early; but there exists, however, no mean time for this union; it varies according to the species. Both parts are precisely alike. Figs. 73 and 74 represent the right frontal bone of the cat, as seen on its external surface: we note, first, that there is the interior margin marked q, q, q, q, q; on the opposite side two osseous attachments, n, n, with a hollow between them. Second, the posterior margin o,o, o, o, o, beveling outwardly and articulating with the anterior margin of the parietal bone. The letters a, a, indicate the region of the frontal sinuses, which are generally well developed in the adult cat. One may have a tolerable idea of these sinuses from the examination of Fig. 41 (March No.), representing a vertical section of the fully-matured cat. It is owing to the frontal sinuses that enormous ridges exist in the lion, which occupy fully one-third of its frontal bone. In the wolf the frontal sinuses are immense. So also, in certain species of dogs, especially the mastiff, they are very much developed. Generally small species of dogs show little or nothing of these openings.

Fig. 74.—RIGHT FRONTAL. OUTLINE.

Fig. 75.—FRONTAL BONE (CAT), INNER SIDE.

Figs. 38 and 39 (March No.) represent the vertical section of the skulls of two dogs, one, Fig. 38, belonging to the mastiff species, of middle size; the other, Fig. 39, is the head of a lap-dog. The first has enormous sinuses, while in the other there exists no trace. One infers easily how impossible it would be to estimate by the exterior the development of all the cerebral parts in the first of these heads. In the martin, the pole-cat, the weasel see Figs. 42 and 43 (March No.), the frontal sinuses are small. One observes, however, in the first some openings communicating with the nasal fossæ. The numbers 1, 2, 3, Fig. 74, indi-

Fig. 76.—FRONTAL BONE (CAT), OUTLINE. INNER SIDE.

* In this connection the orang-outang should be mentioned as an exception, certain acts of that animal being extremely remarkable.

cate parts corresponding to the brain. The remarkable differences which these regions indicate in the carnivora and other animals show how much interest anatomy, when studied in this manner, has to offer.

Fig. 77.—Frontal Bone of Rabbit. Outer Side.

Seen on its lower surface, Figs. 75 and 76, the frontal bone of the cat presents the following points: First, the anterior margin which articulates with the opposite frontal, q, q, q, q. Second, a concave surface, y, y, corresponding to the eye-ball, and appendix 5, representing an external orbitar apophysis, an angle or opening n, n, receiving the anterior and superior part of the ethmoid. Third, a hollow, o, separating the two apophyses marked n, n. Fourth, a part of the cerebral surface of the frontal, a, a. The external surface of this bone in the cat is covered by its periosteum and some muscles. These, in their turn, are inclosed by the skin, to which they are adherent more or less loosely, by means of cellular tissue. The hair which covers the cutaneous portion of this region of the head varies greatly in texture and length, according to species.

Fig. 78. — Frontal Bone (Rabbit), Outer Side. Outline.

FRONTAL BONE IN RODENTS.

The frontal bone of the rodent is double, and exhibits a very irregular shape. On the outer sides are seen a smooth surface of considerable extent and depth from front to rear (Figs. 77 and 78). That part which is indicated by 1 answers to the anterior region of the brain; 2 to the olfactory bulb; and 3 to the upper part of the ethmoidal cellules. The superior margin, o, o, o, o, o, articulates with its corresponding bone on the right side. The anterior margin terminates on the right and left by two osseous processes, of which the external, 9, 9, 9, (Fig. 78), is the longer. It is upon this the bone proper of the nose lies, which is extremely developed in the rodent, particularly in the rabbit from which the illustration is taken. The exterior border contributes to the formation of the orbitar arch, k, k, k, k. The posterior border, d, d, d, which is of a notched pattern, articulates with the adjoining parietal, and with a small part of the temporal, at x. Observed by its inner side the frontal bone (Figs. 79 and 80) exhibits, first, a smooth surface, m, in contact with the brain, from which it is only separated by the dura-mater; second, a bony plate forming the interior and lower region of the orbit v, v, v, v, v; between this plate and the orbitar apophysis a hollow, 8; before the bony plate a slightly uneven surface, e, e, e, e, e, in contact with the ethmoidal cellules, which is lined in the fresh state by the pituitary membrane.

Fig. 79.— Frontal Bone (Rabbit). Inner Surface.

Fig. 80. — Frontal Bone (Rabbit). Inner Surface.

No frontal sinuses are found in the rabbit, hare, squirrel, marmot, beaver — animals belonging to the family of rodents. They are, however, very considerable in the porcupine, which belongs to the same class. The class of animals which possess the largest frontal sinuses is that of the ruminants. The ele-

phant has them so greatly developed that there exists sometimes ten or eleven inches of space between the two bony tables.

FRONTAL BONE OF BIRDS.

The frontal bone in birds (Figs. 81 and 82) is likewise composed of two pieces, which unite very early. Its external surface is ordinarily smooth; but in some species, for instance the guinea-fowl, a kind of process is observed situated in the middle and anterior part of the skull, its base occupying nearly the half of that surface. In some species the external surface of the frontal is covered, at that part which forms the external obitar region, by a granular body having close relation to the tissue proper of the glands. The surface of the bone adjacent to this body is ordinarily, therefore, more or less rough.

Fig. 81.—Frontal Bone of Crow. Outer Side.

The external surface of the frontal bone is covered by a fine skin furnished with feathers. It adheres to the bone by cellular tissue more or less dense. Let us divide the external surface of this bone into four regions (Fig. 82), viz: an anterior of which the central part is marked v, and three others placed behind that, 1, 2, 3. The first region has no connection with the cavity of the cranium.

Fig. 82.—Frontal Bone of Crow. Outside Outline.

Seen interiorly (Figs. 83 and 84) the frontal appears to be divided into two regions by an osseous plate forming part of the orbitar (Fig. 84) b, b. Farther forward we perceive a spongy or cellular tissue. The exterior part of this plate forms the anterior region of the orbit. The posterior region, 1, 2, 3, corresponds to the encephalon. We remark some depressions in connection with the most developed parts of that organ. Like all the large bones of the cranium, the frontal in birds is composed of two plates more or less associated and provided with diploë. In some species this tissue is sufficiently developed to occasion a remarkable separation of the two plates. For example see the skull of the owl. With the exception of a very small number of species, the whole family of birds offers the best of advantages for appreciating, by the exterior of the cranium, the development of the cerebral parts; the external plate being generally but very slightly separated from the internal.

Fig. 83.—Frontal Bone of Crow. Inner Surface.

The frontal bone of birds articulates by its superior margin with its like, o, o, o, o, o, o (Fig. 84); by the posterior, p, p, p, p, p, with the parietal bone; by the external orbitar angle, d, with the anterior angle of the temporal bone; and, finally, by its anterior margin with the inferior maxillary and the nasal x and f. It is worthy of remark here that the frontal or coronal which forms, in the human family and the ape, only one-quarter, or very nearly, of the extent of the cranial cavity, in the carnivora, and the rodent a quarter, or a fifth, and even a sixth part of this cavity, constitutes in birds, however, more than one-half of the bony envelope. Only after a long and profound study of forms can we have a perfect idea of the relations which exist between this bone and the functions of the organs which it covers.

Fig. 84.—Frontal Bone of Crow. Inner Surface. Outline

OF THE PARIETAL BONE OF THE APE.

If there exists apparently a great analogy in form and structure between the parietal bone of man and that of the quadrumana (Figs. 85 and 86), we find indeed a very striking difference between them. In the matter of extent its form, in man, is quadrilateral, its margins articulate with the same bones, and it is composed of two plates containing between them the diploic substance. The same relations exist also between the parts which cover it exteriorly and those which are found in contact with its internal development; but after we have tried upon the parietal of the sajou the same divisions which we have marked upon that of man, we shall see that this bone has but little more extent than one of the divisions in the same bone in the latter; for example, that marked 5, the eight remaining give consequently the whole excess of surface in man, (see Fig. 60, April number, diagram of human parietal, which is but two-thirds of the natural size); whence we must conclude that certain encephalic parts which exist in the latter are wanting in the ape, and

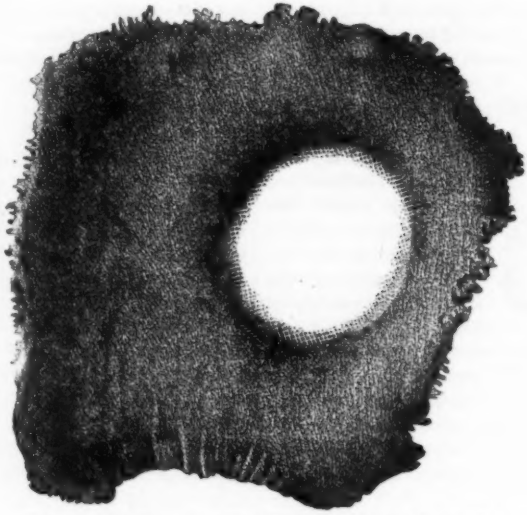


Fig. 85.—Right Parietal in Man, Exterior Surface, (Reduced).

Fig. 86.—Parietal in the Ape. Outer Side.

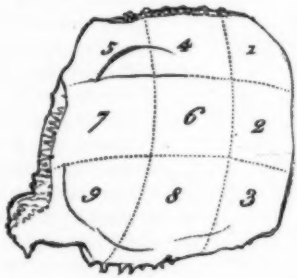


Fig. 87.—Parietal in the Ape. Diagram.

that if there exist in the latter, as we shall demonstrate, certain cerebral organs in the parietal region having the same

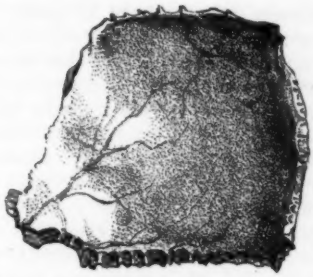


Fig. 88.—Parietal in the Ape. Inner Surface.

functions as those in man, they are still far from having the same degree of development.

It may be remarked here that the works of the most distinguished anatomists, even of the present day, have been confined to descriptions of the bones which envelope the cerebro-spinal system, and a few like Mr. Huxley have traced the relations subsisting between the osseous structure of man and that of the lower animals, with more or less minuteness; but none have shown the relations comparatively existing between the parts of the cranium and the contiguous regions of the brain, besides Gall and other learned phrenologists, especially Vimont, whose great work on "Comparative Phrenology" stands quite alone as a remarkable example of scientific research and artistic accuracy. Dr. Gall was indeed the first to institute this class of investigations, but did not carry them to any great extent, his study of the human organization absorbing his time and attention.

THE PHYSIOLOGISTS AND LOCALIZED BRAIN FUNCTION

[FROM A LECTURE BY DR. JOHN LOGAN.]

DR. MICHAEL FOSTER locates the function of Amativeness in the spinal cord. Prof. Ferrier cites several pathological cases that would favor the location of the amatory propensity in the medulla oblongata and pons variolii. Others think it may be situated in the sympathetic, which sends nerves to those parts that have to do with generation. Or that it may be in some of the convolutions in the base of the brain—the temporo-sphenoidal lobe, for instance, with which the great sympathetic is directly connected. The fact is, they do not appear to know where it is. One thing, however, we do know, which is this, that men and women, wide and deep in the base and back part of the brain, with full, round necks and prominent chins—physical peculiarities that always go together—have a greater liking for the opposite sex than have those with narrow, little heads, scraggy necks, and small, receding chins. You notice how deficient these signs are in crusty old bachelors and mildewed old maids. Circus performers, as a class, have the cerebellum large, and they are distinguished for two qualities—they balance themselves on nothing, and bestow their affections wherever they can.

EFFECT OF REMOVING CEREBRAL LOBES.

Remove the cerebral lobe from the frog, but leave the central ganglia, and he swims and hops and croaks as if the brain were entire. He has, however, no volition, and, unless irritated, remains stationary and inactive. The same is the case with the pigeon. He flies when thrown into the air; walks when pushed. If not disturbed, he acts as if asleep. Similar operations have been tried on rats and rabbits, with the same result. Neither will eat, though food be placed before them. Unless fed, they would, amid plenty, die of starvation.

The possession of these ganglia, though the right and left hemispheres be cut down to their surface, enables animals to perform the most complicated movements. But their movements are without aim, and are performed without the direction of the will. Here let me remind you that the lower an animal is in the scale of development, the more brain you can remove without destroying coordination.

FUNCTIONS OF THE CONVOLUTIONS.

The hemispheres of the brain, as I have already explained, are composed of white and gray matter, with the gray matter on the surface and dipping down into the furrows. Flourens and the older observers found it to be insensible to stimuli; that the removal of it, piece by piece or slice by slice, produced no obvious effects on the intelligence or volition of the animal. Hence, it became very common to deny any function to the convolution of the hemispheres, and to speak of the brain "acting as a whole." Dr. Michael Foster says, sarcastically, that he does not know what "acting as a whole" means. I have listened to many learned discourses, and have read many learned essays on the "brain acting as a whole," but I have never believed them. My observation on the various animal species, and on the several races of man, and my comparisons of the skulls and brains of the dead, and the heads of the living, convince me of the contrary. You, who are familiar with the literature of Phrenology, know the abuse hurled at Gall and Spurzheim for attributing to the several parts of the brain separate functions.

Though neither pathology nor experimental physiology disprove Gall and Spurzheim's theory concerning the functions of the convolutions, yet they demonstrate, beyond cavil, that at least *some* of the faculties of the *will* are exercised through those parts, for when removed, the animal has neither will nor intelligence. Then there are the many evidences of

PATHOLOGY AND GALVANISM.

In sickness, disease of the gray matter of the hemispheres produces delirium, and even convulsions, these phenomena sometimes being related to particular groups of muscles. Hitzig, Fritsch, Ferrier, and others, have shown that the application of the galvanic current to the convolutions, and to the different parts of the convolutions, gives rise to definite movements of various groups of muscles. The stimulation of one spot produces movements of the muscles of the neck; of another, the leg; of another, the arm; of another, the eyes; of another, the mouth; of another, protrusion and retraction of the lips; and so on until he has marked out eighteen centers of motion on the parietal and occipital lobes. These movements were produced even when individual convolutions were isolated from the surrounding parts of the brain. The stimulation of distinct areas produces distinct movements, while the stimulation of a large surface produces convulsions.

These experiments were performed by different physiologists in different parts of the world, and in all cases the same results were produced. The muscles responded as regularly to the stimulation of the several parts of the brain designated, as the notes of a piano respond to the striking of its keys.

WHAT DO THESE EXPERIMENTS PROVE?

Ferrier, by the removal of some of these centers, has produced paralysis of those parts of the body that respond to their stimulation. The average man would very likely infer, when the stimulation of certain parts produces motion, and their removal paralysis, that experimental evidence conclusively proves their functions; but it does not. The movements that follow the stimulation of these convolutions, and the paralysis that supervenes on their removal, prove nothing as to their functions. The experiments by which Ferrier produced paralysis were defective. He did not allow the animals to live long enough after the operations

for recovery to take place. He kept them alive but a few days. Nothnägel and Herman discovered that if the animals were kept alive long enough to recover from the shock of the operation, the symptoms of paralysis disappeared.

You know, from what I have said, that all these movements induced by the application of the battery to the external surface of the brain, have been performed on animals. These experiments really prove not that surfaces of the brain contain "tactile centers," "motor centers," "visual centers," "auditory centers," "sensory centers," or any other centers, but that it is connected by fibers with the central ganglia, low down in the brain—those parts that carry on co-ordination of movements, in the absence of the hemispheres—and that the electric current passes along these fibers to the centers, where nerve force is stored, is sent along the motor nerves and completes the movements described. So that modern experimentalists, while they have patiently and admirably illustrated the functions of the central ganglia, and some of the functions of the cerebellum, have added nothing to our knowledge of the functions of the convolutions, except that they have proved that their possession is necessary to the exercise of the will.

POPULAR MISTAKES.

MAN is a creature of mistakes. By mistakes he learns. From the days of Tubal-Cain to the days of Alva Edison he has been inventing, improving, and learning by his blunders. The life of an individual, from childhood to manhood, epitomizes the life of the race. Theodore Parker well puts it: "By stumbling the child learns to walk. Every fall is upward."

In this sense mistakes are necessary. They are the educators of mankind. They are a part of the great plan of the almighty Designer of the universe by which man is enabled to educate himself and ascend the scale which continues upward, but never ends.

But man is an imitative being. He copies the mistakes of his ancestors. This imitative faculty of man, which he has in company with the monkey, is, to my mind, one of the strongest arguments for the Darwin hypothesis. He imitates the bad as well as the good, and perhaps the former more than the latter, just as a monkey will learn mischief faster than anything useful.

Thus he copies mistakes, and mistakes become popular. Fashions are due to this imitative faculty, though all fashions are not mistakes.

There is a prevalent idea that the world is growing weaker and wiser. While many do not believe this, they believe that we are growing wickeder and wiser. How often do we hear our fathers and mothers saying, "It wasn't so when I was young." To hear old people talk sometimes one would think that our grandfathers and grandmothers were all saints and giants, and we their degenerate offspring all devils and dwarfs.

I am happy to be able to state, and think I can prove it, that the world is growing physically, mentally, and morally stronger, wiser, and purer. There are men just as strong living to-day as there ever were. Milo carried a calf every day until it grew to be an ox. Dr. Winship commenced by lifting small weights, and adding to them daily until he could lift 3,000 pounds. Who of our grandfathers ever swam across the Straits of Dover like Capt. Webb? Weston and O'Leary can outwalk all the ancient pedestrians. Hercules could not stand up against the educated muscles of Heenan or Jem Mace. I need not say anything about our great and good men. We have men and women to-day superior to those of any past age, and a great many more of them.

Another popular mistake is, that as

men advance in civilization they depart from nature's plan. Out of this idea has grown the prevalent belief that Indians and savages and the lower classes are healthier and longer-lived than the educated Caucasian. It is contrary to all ideas of progress and not supported by facts. As though the filthy savage, who rolls in dirt, bathes his body in grease instead of water, and exposes himself to all the vicissitudes of a changeable climate, half clad, sometimes gorging himself with unhealthy food, and again starving himself for days, could be more healthy than the educated Caucasian who obeys the laws of health and practices temperance in all his daily duties. I must admit that civilization, by bringing unnatural and unhealthy fashions, does harm in many cases, and many fall victims to these unnatural customs, yet, upon the whole, there are enough sensible persons among the civilized to redeem the race, and bring the average far above that of the lower races. Civilization brings its curses as well as its blessings. When locomotives were first proposed many people objected because they said the country would be filled with smoke and dust, and animals would be frightened to death. True, the locomotive does bring smoke, and sometimes you get a cinder into your eye when you look out of the car window, and sometimes animals are scared or run over, and even persons are killed, yet who will deny that railroads are a blessing? It is said that rats were never known in Nebraska until the railroads were built into that country. Railroads bring human rats, and so do all the arts of civilization have their evil attendants. The open-air life and coarse food of the savage conduces to his health and longevity, and is in direct contrast with the close confinement and refined foods of too many civilized people.

But all civilized people do not continually breathe foul air, nor eat unhealthy food, nor, if you will allow the word, tight-lace. Savages have many diseases, and when they get sick they generally die. How is it when small-pox or any contagious disease gets among them? They are taken off by the thousands; scarcely one who is attacked escapes.

Right along here is another popular mistake. It is, that wild animals are perfectly healthy, and domestic animals and those wild animals which are tamed and kept in confinement only are diseased. This is an idea that has been started by naturalists, and is generally believed among all classes of people. This is an error, as shown plainly by the researches of Prof. Vilain. He says that he dissected the carcasses of fifty lions in Algeria, and twenty of the number had diseased lungs; in some of them the lungs were almost gone, showing that consumption prevails extensively among lions. He also dissected a number of lions which had been born and reared in the zoological gardens of Paris, and found every one of them to be healthy. Why was it? The wild ones had been exposed to the drenching rains, inhaled the sand-laden air of the desert, and often gone without food for days; while the tame lions were protected and regularly fed. He also proved that wild wolves suffered with nasal catarrh, while tame ones did not. A famous hunter of India testifies that he has often seen tigers spitting blood, which so weakened them that they might be approached with impunity. Monkeys are very delicate animals, and are subject to consumption unless carefully protected. Foxes are said never to die from disease because they are as cunning and shrewd in their diet as in everything else. The buffaloes of the plains suffer with dyspepsia and heart disease. The elephant is said to be a very temperate and abstemious animal, and though he often dies in captivity, it is always from mental and not physical causes. They often die of broken hearts. They are deeply mortified by slights and insults. The Western hunter can testify also that nearly all the deer that are killed have diseased livers.

There is also a popular idea that the Indian is superior to the white man in many respects. Cooper's novels have much to say about the "noble red man,"

and even our school-books hold up the idea that the Indian is a noble character, and has been abused and down-trodden. Pope, in his "Essay on Man," says:

> "Lo, the poor Indian, whose untutored mind
> Sees God in clouds and hears Him in the wind."

A statement not untrue, but yet calculated to give the idea that the Indian is a very pious and religious character. If you were to go out among these dirty specimens of humanity, and remain a week or two, you would be convinced that a great deal of this talk about the "noble red man" is all "bosh." Our Government has been and is still making a mistake in treating these savages as a sort of "outdoor pensioners," or, to use a phrase intelligible to editors and showmen, putting them on the complimentary list. Just think of the immense sums of money expended every year, the only effect of which is to maintain these people in their old heathenish ways. Why not put them on an equal plane with white men, and make them obey the laws, and teach them, as we teach our children, to work and earn their bread and meat?

It is very common among ignorant people, and indeed among some not so very ignorant, to suppose that only learned men have theories. Why did it never occur to them that we theorize only upon that which we do not know, and consequently the most ignorant person theorizes, and the most and the only difference between the theories of the learned and the ignorant is that the learned man can produce more facts to support his theory than the ignorant man? Why, the ignorant man can give you a reason for everything, while the wise man is continually compelled to say, "I don't know." Prof. Tice will bring up a multitude of facts to support a certain theory of the weather, and after all is compelled to admit that he can tell very little about it; while to the common ignoramus it is all as plain as day according to his theory, which is based on a single assertion, viz: that the ground-hog comes out of his hole on a certain day, and it all depends on whether he sees his shadow or not. There are plenty of these ground-hog believers living yet in this enlightened last fifth of the nineteenth century.

People make a great mistake about these two terms—faith and doubt. Says Lowell: "The greater faith which is to come will see God rather in the strenuous doubt than in the creed held by an infant's hand." I have heard the cry of infidel hurled at Lowell on account of this passage alone. Prof. Swing has been hurled from an orthodox pulpit because he advocated the same idea. But in the brighter light of later days it is beginning to creep into the minds of many that faith and doubt are partners, two factors which work together to produce all intellectual and moral progress. A man never invents a machine until he has doubts about the old way being the best way, and the next step is a theory of a better way, and then follows a faith in that theory, and he goes to work and the result of the working of these two is something new. And so with all improvements; there must first be doubt, then faith, and new doubts will upset the old faith and a new faith is based on a new theory, and it is followed out until it results in a new discovery. If Columbus had not doubted the existing theory of the earth, would he ever had faith in the theory that there was land on the other side? Copernicus doubted the theory that the earth was the center around which all the heavenly bodies revolved, and he had faith in the theory that the earth revolved around the sun. Galileo doubted that the earth stood still, and was persecuted for it; but Galileo was not an infidel, for he believed that the earth moved. Martin Luther doubted the propriety of the practices of the Popish Church; and looking at it from this stand-point alone, he was the greatest infidel that ever lived; but he had faith in a better way. Doubt and faith are thus the complements of each other, the Paul and Virginia that go hand in hand through the flowery vale and over the rugged rocks of all advancement.

G. DALLAS LIND.

THE PANTHEON AT ROME.

THIS is the best preserved of the ancient Roman edifices, and is regarded as the finest example of pagan architecture in that city. It was erected by Marcus Agrippa, the son-in-law of Augustus Cæsar, in the year 26 before the birth of Christ, and dedicated to all the gods in the Roman mythology. Letters written at that time are extant which record the circumstances of its construction. In the center a colossal statue of Jupiter stood, and surrounding it were seven niches designed for the marble representatives of the chief pagan deities.

The Pantheon was used for worship in the ancient Roman manner until A.D. 399, when it was closed by the Emperor Honorarius. Nearly 300 years later, in 608, Pope Boniface IV. consecrated it to Christian usages under the name Sancta Maria ad Martyreo.

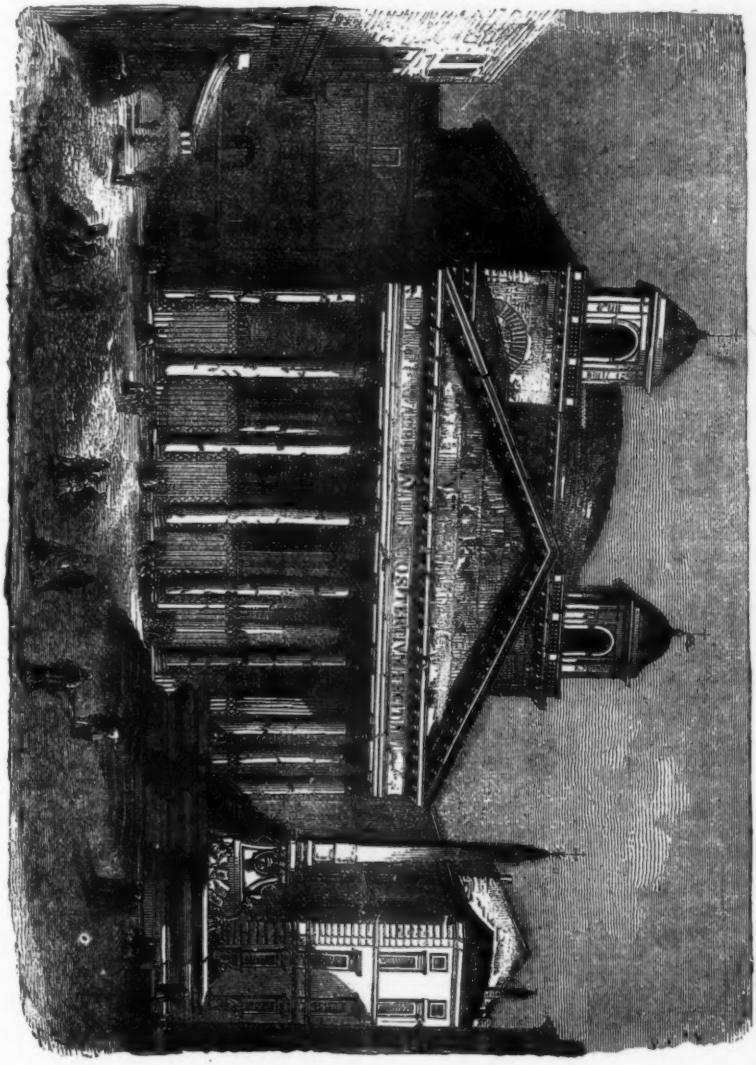
Like all the edifices of Europe whose age goes back to or beyond medieval times, the Pantheon has suffered from the rigors of war and the caprice of sovereigns. The pediment in front, which is supported by a triple row of columns, each being 46½ feet high and 5 feet in diameter, was originally covered with tiles of gilt bronze, the greater part of which were removed by the Emperor Constantine II., and the remainder by Pope Urban VIII., in 1623, to make cannons for the Castle of St. Angelo, and a baldacchino for St. Peter's. In the eleventh century the anti-Pope Guibert used it as a fortress, and a hundred years later it was again the scene of religious strife. In the seventeenth century two Popes, Martin V. and Eugenius IV., expended large sums toward its restoration, but they were soon after followed by heads of the Church who appeared to have little sympathy for its preservation. Urban VIII., as we have seen, stripped its pediment of the remaining bronze covering. Benedict XIV., in 1740, removed all the precious marbles which lined the columns and walls of the interior.

The Pantheon stands in a piazza between the Corso and the Piazza Navona, and near the center of the ancient Campus Martius. In form it is circular, the diameter inside being 143 feet; above the massive walls rises a dome whose summit is 143 feet above the pavement; in the center of this dome is a circular opening 28 feet in diameter by which the building is lighted. The Corinthian portico is the most remarkable feature, it being 110 feet long by 44 in depth, with its 16 granite and marble columns supporting the pediment. Other interesting features are the bronze doors, the niches, the marble cornice, and the mosaic pavement, which are all in excellent preservation.

Nathaniel Hawthorne, in his "Transformation," visits the Pantheon with Hilda and Kenyon, and says: "The world has nothing else like the Pantheon; so grand is it, that the pasteboard statues over the lofty cornice do not disturb the effect any more than the tin crowns and hearts, the dusty artificial flowers, and all manner of trumpery gewgaws hanging at the saintly shrines. The rust and dinginess that have dimmed the precious marble on the walls; the pavement, with its great squares and rounds of porphyry and granite, cracked crosswise in a hundred directions, showing how roughly the troublesome ages have trampled here; the gray dome above, with its opening to the sky, as if Heaven were looking down into the interior of this place of worship, left unimpeded for prayers to ascend the more freely—all these things make an impression of solemnity which St. Peter's itself fails to produce. 'I think,' said Kenyon, 'it is to the aperture in the dome—that great eye, gazing heavenward—that the Pantheon owes the peculiarity of its effect. It is so heathenish, as it were—so unlike all the snugness of our modern civilization! Look, too, at the pavement directly beneath the open space! So much rain has fallen there, in the last two thousand years, that it is green with small, fine moss, such as grows

over tombstones in damp English churchyards.' "

Europe, and other features of the Pantheon have been profitably studied by



THE PANTHEON AT ROME.

The dome has served as the suggestion of all domes which have been built in

architects of the Christian era even to the present day.

An inscription on the frieze of the portico shows that it was erected in the third consulate of Agrippa, while below are recorded statements of repairs done by Septimus Severus and Caracalla.

Within the Pantheon are the tombs of Raphael, Zucchero, Annibale Caracci, and other painters; and last to be laid there was Victor Emanuel.

ECHOING BELLS.

It was a coy, calm, fragrant night in summer-time,
When through the dusky hush no whisper came
Save thirsty meadows rustling for the rain,
Or woodlands musing with a soft and sleepy rhyme.

A night, when one would dream of dear and lovely things;
Of tender passages and sweet pursuits;
Of Orphean lyre or threnody of lutes;
Of songs and sighs and stars and liquid murmurings.

Thus musing, as I wandered o'er the drowsy lawn,
I came upon a marble basin white,
And sat me down beyond the fountain-sprite—
Beyond her damp, gray drapery in the night-breeze blown.

And as I sat, I looked up; lo! there gleamed a bell,
A sweet-toned bell, that once I used to know,
Up in yon star-torn belfry long ago.
To-night the nakedness of heaven becomes it well!

"Oh, Voice of old!" I cried—"thou dear dead Voice of old,
What would I not, to hear thy mellowing strain
Call back the scattered leaves of life again
Into the Book, between the asterisks of gold!"

Yet how could it reply, that long disused bell,
From which the rotted ropes hung scarcely down;
Whose belfry-ladder, in the dusk-light brown,
Bent as the hastening spiders spun their webs and fell?

But hark! was that the whisper of some voice I knew,
It was so full, so sudden, and so sweet?
Nay! some far-distant bell with languid beat
Rolling up hours into the horoscope of blue.

Again! Ah, sweet delay of rapturous surprise!
That weary bell complaining far away,
With silver hammers in the shades astray,
Had touched my voiceless bell to whispered harmonies.

Back rushed the tide of memory from isles of old,
And through the night some nameless angel came,
Numbered life's scattered leaves with pen of flame,
And wrote between the stammering asterisks of gold!

Whene'er at soft, still night, I chance to hear
Some far-off bell melodious and clear,
I think how many towers in all the land
Keep mystic measure to the ringer's hand.

And since our lives, like living bells, must ring—
Remember, like a bird the echoes wing!
Or joyously or sadly, as we will,
Dim towers receive the song on every hill.

Oh, sweetly ring these bells, in weal or woe!
Life's deathless echoes soft, submissive lie;
And when we, too, in moss-deep silence lie,
Float up forever to the bells on high!

PAUL PASTNOR.

HENRY FAWCETT,

THE BLIND AUTHOR AND STATESMAN.

ONE of the most prominent among English politicians and men of letters is Prof. Henry Fawcett, who, notwithstanding his twenty years' blindness, has won and maintained a distinguished position as a representative of the mass-

es. The portrait shows an organization of the mental type; the perceptive faculties are very large, especially those at the center, indicating power of memory and concentration. The reflective faculties are full, Comparison being the strongest, and correlating intimately with the perceptives. There is a notable expansion in the region occupied by the organs of Constructiveness and Ideality, while Acquisitiveness is also well marked. This type of development should exhibit itself in a character marked for its appreciation of details, for ability to understand their relations, to devise and organize methods of action which shall be characterized by their practical, economical, and prudential features, and at the same time by their harmony, proportion, and symmetry. The head is high from the root of the nose to Benevolence, but its unusual breadth renders the height less apparent than it would otherwise be. One must observe, however, that the proportion of

the features is almost classic, the respective thirds of the face approaching the standard of the artist for the masculine type of symmetry. The moral region, as shown by the elevation of the crown above the ear, is large, the organs of Benevolence and Faith being among the best developed, and inclining him to be kind, sympathetical, and trustful. He is also evidently ambitious and tenacious of his purposes, and may, because of the delicacy of his organization, show, at times, some irritability, when opposed by the cynical or selfish, but he usually carries himself with steadiness and ease among the factious, and commands the respect of all classes by his dignity of manner and comprehension of the subjects he would discuss.

He was born at Salisbury, England, in 1833, and educated at Queenswood College, at King's College, and at Trinity Hall, Cambridge, where he was graduated with high honors in 1856, and became a Fellow of the Society in the same year.

His sympathy for the masses led him to enter the arena of politics, and in 1857 he offered himself as a candidate for Parliament, and contested the borough of Southwark as an advanced Liberal, but was unsuccessful.

In September, 1858, he met with the accident which deprived him of sight. While engaged in partridge shooting, two shot from the gun of a companion perforated the spectacles he wore, and entered the retina of the eyes. Previous to this accident he had entered at Lincoln's Inn, with a view to practicing at the Bar, but the sad calamity put an end to his career, and he declined the considerate offer of the Benchers of that Inn, to "call" him to the Bar without further delay.

He did not, however, give up his political aspirations, but offered himself as a representative of the same liberal principles in 1862 and 1864, without success.

In 1863 he was elected Professor of Political Economy in the University of Cambridge; and two years later he published a "Manual of Political Economy," and the "Economic Position of the British Laborer." In a general election, in 1865, he was returned for the last-mentioned constituency, and he was re-elected in 1868; but he lost his seat at the general election of 1874. The election of Sir Charles Reed and Mr. John Holms, for Hackney, having been declared void, on account of an informality, Sir Charles withdrew from the subsequent contest. In April, 1874, Professor Fawcett was invited by all sections of the Liberal party in the borough to become a candidate, and he was elected. Since that time he has retained his seat in the House of Commons and no other member of that great assembly of the British nation is listened to with more respectful attention than he whenever he rises to address it. He has made Indian affairs a careful study, and is regarded a thorough master of them, so that his presence among English statesmen is deemed indispensable, as "the representative and mouth-piece of the teeming millions of Hindustan."

Besides his "Manual of Political Economy," he is the author of related works, as: "Pauperism and its Causes," which appeared in 1874, "Speeches on Political Questions" in 1875, and "Free Trade and Protection" in 1878. In 1872 Mr. and Mrs. Fawcett published, jointly, a volume of essays on Political and Economical topics.

It should be said that Prof. Fawcett has been greatly assisted in all departments of his literary and political work by his wife, a highly educated and intelligent lady.

His earnestness in the cause of public reform is shown in his co-operation with the friends of Temperance; in this he has shown himself as unfriendly to halfway measures, such as "local option," although English temperance men are disposed, as a class, and reasonably enough, we think, to accept the "half-loaf" if they can not get more.

UNITY OF THE HUMAN SPECIES.

PART III.

ANOTHER important fact in defense of evolution according to natural selection is said to be the beautiful adornment of birds and fowls, the object of which is declared to be to attract the other sex. Mr. Darwin considers the beautiful display of the peacock and butterfly designed to attract the attention of the other sex, leading to the marriage relation, just as the human sexes adorn themselves for such purpose. This conclusion is founded on the fact that he can find no other use for the possession of such beautiful wings and feathers. There may be quite a number of things in the universe the use of which Mr. Darwin does not know; but does that justify him in assuming that any of them are for some definite use, with no other reason for it than that it goes to aid his theory?

Will Mr. Darwin please inform us for what purpose the beautiful and sweet-scented flowers of the field and wild-wood are so exquisitely adorned that they called forth that forcible comparison by Him who made them: "Consider the lilies of the field, how they grow; they toil not, neither do they spin; and yet I say unto you, that Solomon in all his glory was not arrayed like one of these"? (Matt. vi. 29).

In his "Descent of Man," Vol. I., p. 225, he says: "Now, when naturalists observe agreement in numerous small details of habits, tastes, and dispositions, between two or more domestic races, or between newly allied natural forms, they use this fact as an argument that all are descendants from a common progenitor who was thus endowed, and consequently that all should be classed under the same species. This same argument may be applied with much more force to the races of man." In another chapter we have shown this conclusion to be without the least force from the premises.

Now, whatever may be the extent of the supposed gap between the lower animals and man, it is certain he must rule them or be ruled by them; and were it the latter, he would long ago have been devoured; if, indeed, he could ever have obtained a start in existence, upon Darwin's theory.

That man does exist, and is the ruler of all the lower animals, proves there must always have been as great a gap between him and them as that which now exists. This fact is irreconcilable with the notion that there ever were animals only so much lower in the scale than man that the degree could not be easily distinguished; and evolution only admits of this, as it would have necessitated an act of creation had there ever been a great change —such even as that which now exists between monkeys and men. For the sake of argument let us admit the existence of this close relation, and do we not see that the contest for supremacy would involve perpetual warfare, and that between the two savages the most savage would always prevail? Hence the lower men-monkeys would exterminate the higher men-monkeys. Every time a lower animal evolved one of a higher degree, and therefore of a more pacific and civilized disposition, and should attempt to govern his father with less brute force, the more savage brute-father would devour him: the most unfit would therefore survive. It must be remembered that the standard of intelligence between the two does not admit of sufficient difference to give one the advantage of superior weapons.

In illustration of this let us inquire, why have the American Indians so long survived? Why has the United States Government petted and indulged them as it has? It has not been out of any peculiar sympathy or respect for them, but simply and solely because they were savages. Would the people of this country have tolerated the existence of an equal number of whites, reds, or blacks from any other country who had

emigrated here, and who had committed as many cold-blooded atrocities upon helpless, unarmed men, women, and children as thay have done? No! Every man of them would have been exterminated; but for the fear of the same cruel, savage acts they have been tolerated and have survived. No; if men were savage at first, so would they have forever remained, just as the lower animals have done, unless domesticated; and this was not the work of the animals, but of civilized man. It is also true that the most savage has the lowest intellect, and as a consequence the least regard for results, either of a moral or physical character; and he would also have the greatest physical strength, in which respect man is vastly inferior to his animal contemporary or ancestorial brothers and sisters.

Such a state of facts and their teaching shuts us up to the only other alternative, namely, the revealed theory contained in the Bible. Here we find the gap between man as the ruler, and all other animals as the subjects, so wide that they are under the control of his will and superior intelligence; this record is corroborated by the facts of the world's natural history: "And God created man in his own image; in the image of God created he them. And God blessed them, and said unto them, Be fruitful and multiply, and replenish the earth, and subdue it, and have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth" (Gen. i. 27, 28).

Hence, according to the facts and nature of things, instead of the family of man having commenced with universal savage life—and that, too, animal savage life—from which it has been progressing toward civilization by such contests as above, it started with the highest intellectual, moral, and physical susceptibilities and endowments; and being the most fit to survive, has survived. The same authorities tell us that the largest and most powerful of the lower animals have perished; while there has not a single species or individual of the savage animals, if left to themselves, ever lost their savage nature; and that all are savage still, demonstrates that man could not have been the exception; and that were his ancestors brutally savage, and associated with none higher to teach him civilization, such also must his children during all successive generations have remained.

When the polygamists assume that one species produces another, they put themselves in opposition to all these facts, and also in contradiction to all the naturalists, botanists, and zoologists, and indeed all the eminent minds who, following Buffon, Turnefort, Jessieū, Cuvier, Geoffroy, Saint Hilāire, have studied plants and animals outside of all discussion and without thought of evolution; but the facts of experiment thus furnished demonstrate nature to be utterly incapable of producing a new species, and of the primitive pair as well, and that her laws are confined to the simple and unimportant changes modifying species resulting in different races of each, thus rendering the conclusion inevitable that each pair of animals and each plant originated in supernatural wisdom and power.

Now, if a continent has been peopled by a single pair of animals of a certain species, or by a certain single plant in the course of a few generations, then, in a greater number of generations, the habitable globe has also been thus populated. And if among all the modifications of species into races there has never been produced an organic thing lacking a single vital organ, or one that had double the number—say one which had two sets of lungs—and transmitted the same to offspring, it also follows that the original progenitors of each species were perfect in themselves, necessitating the continual identity of each; therefore polygenism can not be true; but that the original progenitors of each species had its existence in the mind and acts of an independent *Creator*. Any other view is alike antagonistic to philosophy, science, and the endless array of the cosmological facts of nature, discovered and understood by her

students of all ages. Hence Mr. Darwin's definition and classification of species and races meaning the same, is one of the most gross and palpable errors ever advanced claiming the name of *Science*.

If we would hope to arrive at truth, is it not the simplest dictate of reason that we must consult the laws, facts, and principles connected with those animal and vegetable species with which we are most familiar—consequently those of historic and not of prehistoric times—therefore commencing with the living generation? In other words, we must reason from the known to the unknown. Every historian knows that among the ancients each nation had its fabulous epoch, and every religion of idolatry its mythical period; and whatever there was of science, it partook of the same characteristics. According to the geological mode of reasoning, these cloudy records of myth and fable are to be considered more reliable than those of real history. Fossils of supposed extinct species—even one of a kind, and which might have been a monstrosity, having no identical unity in time or kind—evolved from others less perfect, are brought forward to defend the theory. Their position demands that they should produce the most indisputable facts, showing that known plants and animals are the parents of new species before unknown,—for instance, that fowls are from fish, acorns from pines, birds from serpents, serpents from monkeys, monkeys from men—and this only reverses the order of evolution which the facts render necessary, if it exists at all. Instead, however, of giving us absolute proof here, where it is indispensable, these gentlemen have the effrontery to beg the whole question by saying, "Only give nature time enough, and she will evolve that which she does not possess. She will unroll that which is not enrolled, or turn out that which she has not within—such as an organic thing from inorganic matter;" and, to the disgrace of the age, multitudes of sensible people seem to believe it. Let us ask, are not six thousand years of historic time sufficient at least to have made some sensible approximation toward such a result? Especially when it is remembered that during this period it is declared that many species have become extinct by the survival of the fittest; and that, according to the theory, it required the same length of time to go out of existence as to come into it.

Thus, according to their own pet argument, evolution was always impossible, because it is so inconceivably slow that any two generations standing nearest each other are so identically similar that they can not be distinguished; from which it follows that before any radical change is reached the species exhibiting it has become extinct; and the tooth of time has so marred and obliterated the features of the remaining fossils, that no just comparison can be made. Those fossilized human skulls, for instance, which have been pronounced a hundred thousand years old, have their exact types among the living men of our most civilized countries at the present day. Indeed, all the varieties of shape, size, and peculiar form of human heads exhibited by the whole human family may be found among the living, native inhabitants of the city of New York, with phrenological developments of every degree of mental and moral capacity, from the lowest savage to the most civilized of the world.

Some of the facts relating to organic beings, and which show they originated in a single mind, are as follows: All organized beings are born small and weak, and have limited existences, varying from a few hundred years to an ephemeral age. During these periods they all increase in size and strength and reach maturity; then decrease in power, vitality, and somewhat in size, and finally die. While living they must be nourished, and, as species, reproduce their kind either by seeds or eggs, and have a father or mother. As mankind are included in these general laws, they are equally controlled by them. These are not only facts of science, but are established by

every day's observations, and are therefore to be considered *fundamental principles*. And how wonderfully does this show that man and the lowest insect are linked together in the great chain of organic life, forming a world of God's handiwork of mutual dependence and beautiful harmony.

The reasons, to our mind, which show why "anthropology," or the natural history of man, is discussed at the present day with such anxious intensity—its defenders making such bold apparent advances against the well known science of man—are principally as follows: First, the assumption of facts which are not facts. Second, unwarrantable inferences drawn from real facts. Third, arrogant and unqualified declamation. Fourth, an ingenious and subtile sophistry. Fifth, collusion. But the deepest animating cause is a desire to undermine and destroy the foundation upon which Christianity rests. Hence the records of the Bible are set aside with as great an air of ostentation as though they were a mere effusion of the imagination, instead of alone containing the history and object of the world's creation and destiny, as well as the principal historic and prehistoric events, civil and ecclesiastical, which were and are to transpire from its beginning to its end; and, indeed, reaching into "the world to come." These records present the eternal and immortal destiny to which men may attain, while evolution leaves man to die like the common beast, without the least hope of future existence.

Although the chemical properties of the mineral and organic world are interchangeable, yet man is not a mineral or a plant, but an animal. Though he is governed by the physical laws common to all animals, yet he is distinguished from these by at least three fundamental characteristics—the abstract sentiment of good and evil, the conviction that there will be something after this life, and the recognition of a Supreme Being. These are so universally the inheritance of mankind that those who reject them, naturally must have heads of such intellectual and moral depression, phrenologically speaking, as to class them among *monsters*. It is the moral attributes even more than the intellectual which distinguish mankind from the lower animals. But with these exceptions the difference ends; and, as far as the question of species is concerned, man is nothing more or less than the animals surrounding him.

THOS. MITCHELL.

REV. JOSEPH COOK AS A PHRENOLOGIST.

WITH your permission, Mr. Editor, I desire to say through the columns of your most valuable JOURNAL that the Rev. Joseph Cook expresses some views in his lecture on "Culture and Mental Physiology"—one of his Monday lectures delivered a few months ago—with which this "penholder" does not agree. In the opening paragraph of that lecture he compares the brain with a gloved hand with the fingers firmly closed against the palm; and thinks, as it would be very difficult to tell of what a glove was composed in the concealed inner portions, so, in like manner, while it would be easy enough to study the external surface of the brain, the mid-most and bottom convolutions, more concealed, would be more difficult to get at. And hence he says: "The great difficulty with all schemes of mental philosophy, depending on merely experimental tests of the surface of the brain as a whole."

Now, it so happens that a gloved fist bears but an imperfect comparison to a brain in more than one way, as all anatomists know; or as any one can see by examining a brain, or even by looking at an illustration of a section of the brain; for one can not take a convolution of the cerebrum as a finger can be raised from

the palm of the hand and brought in a line with the axis of the hand. No; the outer or cortical substance of the brain does not surround the convolutions as a glove surrounds the finger; the inner or white substance of each convolution is continuous with the deeper portions of the cerebrum, and this is a fact of great importance to the practical phrenologist.

The brain consists of winding eminences of brain matter called convolutions, as already stated, separated by fissures or depressions; the eminences having some resemblance to the fingers of a fist, the depressions between the fingers corresponding to the fissures; but a perfect resemblance between the convolutions does not exist in all brains, nor are they perfectly symmetrical on the two sides of the same brain. The cerebral hemispheres are the organs of the mind; that is, of intellect and emotion, as well as of will. The active portions of the hemispheres are, on good grounds, believed to be the superficial or peripheral convolutions; the white substance being commissural or communicative only. Also: "The number and extent of the convolutions, as well as their depth, appear to bear a close relation to the intellectual power of the individual," says Gray. These are generally admitted facts, recognized by phrenologists as facts which aided them in establishing the best mental science known.

Now size, other things being equal, is regarded as a measurement of power. This being the case, phrenologists claim, very justly, that length of brain fiber from the medulla oblongata is an important aid in estimating the mental capabilities of a brain. If the arrangement of the convolutions were like a gloved fist, then, to reach say, for example, the third phalanx of a finger would be a much greater distance through the continuous tissue than by passing directly over from the palm of the hand to that phalanx. But as one can not pass over from the palm of the hand directly to the finger closed against the latter, as one can pass over from brain substance into a convolution, the comparison ends. It is not denied here that the brain does not dip under slightly in some of its parts, but this dip being comparatively little, it is not, therefore, that insurmountable obstacle in measuring length of brain fiber from the medulla oblongata that some would have it.

It is generally admitted that the larger the brain surface the more intelligence in the individual; the deeper the depressions and the finer the convolutions, the more brain-surface. According as the distance is to the brain-surface from the medulla oblongata, so is the thickness or depth of the convolutions. Physiognomy, and also the science of temperaments, are important aids to the phrenologist in estimating the extent of brain-surface.

After stating that at least fifteen brain-centers are proven to exist by both positive and negative evidence, Mr. Cook predicates as a consequence that the weight of authority in physiological science now supports the doctrine of localization of functions in the brain. He also admits that Gall and Spurzheim made great advances in physiological science; that they were right when they proclaimed the doctrine of localization of functions in the brain; but thinks that they did not sufficiently recognize the fact that the brain is a folded glove!

The reverend gentleman also thinks, or rather does not know but that "a new revised phrenological map may some day come from thoroughly modern investigators." And further, that the "smaller subdivisions" of the phrenological map are by no means a part of established science.

Well, I believe it is generally admitted by phrenologists that the present "phrenological map" may not be perfect. Are the sciences of geology, botany, astronomy, and chemistry perfect? Are any of the sciences perfect? But phrenologists claim, and very justly too, that the present classification of organs is the best classification known, and they are willing and ready to accept any and all improvements on it that scientific investigation can make.

Physiology and pathology of the brain

have made rapid progress during the two last decades, and these investigations have not been detrimental to the science of Phrenology; for, in some cases at least, it has only confirmed what Gall had promulgated as truth long ago. To give only one instance: "The organ of Language is located in the brain above and behind the eye, and when large, forces the eye forward and downward, forming a sack, as it were, under it." Few organs, as far as this writer is aware, were so much disputed, even ridiculed, by the illiterate, for, said they, there is no brain under the eye!

Now, it happened repeatedly of late years that this organ became diseased. And what followed? Aphasia. This name is applied to loss of the power of expression in language, spoken or written, from cerebral disease. Post-mortem examination in a number of cases has exhibited some lesion of the anterior portion of the left hemisphere of the cerebrum in cases of aphasia. This writer is aware that some objection has been urged against this view, for the disease has not been detected in the corresponding region of the right side, and, therefore, it is urged that it supposes an unsymmetrical location of functions in a part of the brain which elsewhere, as far as known, is symmetrical.* But "the proof of the pudding is the eating of it," after all; for, following the principles of Phrenology as laid down by those familiar with the science, will invariably prove it to be true.

But the same authority that has been quoted already several times says: "It is no part of my purpose this morning to defend the pseudo-science of Phrenology. I am not an utter disbeliever in the outlines of it; neither am I an utter believer in it." Who could expect, or hope, or wish any one to be an utter believer in a pseudo or false science? I find in the same lecture, also, this statement: "Although smaller subdivisions of the cranial mass are in debate, it is conceded that the intellectual, the moral, and the social faculties have their localized separate seats in the brain." In fact, about everything is conceded in this lecture that is claimed by phrenologists, save these smaller divisions of the "phrenological map;" and as smaller organs exist somewhere in the brain, and as they are not proved to be located wrongly according to the present classification, but, on the contrary, are proven to exist as at present located, by almost daily examinations by practical phrenologists, this writer is willing to believe that, for practical purposes, Phrenology is the best mental science.

The reader of the lecture will also have noticed that the new and more comprehensive system of temperaments is not noticed; whereas the old classification is mentioned as a part of established science.

PENHOLDER.

* See *Medical and Surgical Reporter*, Vol. XLI, p. 533, for report of one of the more recent cases of aphasia by that distinguished physician, Prof. Da Costa; also, *American Journal of Medical Sciences*, for July, 1868, p. 296, of a remarkable case of injury of the head, in which loss of language followed penetration of the *right* half of the brain.

EXEMPLARY MINISTERS.—It should please all lovers of decency to know that in some departments of the Christian Church efforts are being made to induce ministers to give up the practice of fashionable vices.

The Western Methodist Episcopal Conference not long since adopted unanimously this resolution:

"First, that hereafter no young man using tobacco in any form, coming as a candidate for the ministry, shall be received into this conference; second, that those members of this conference already addicted to the use of tobacco are exhorted to desist from it in public and when in the company of persons who do not use it; third, that all circuits and missions are advised not to send delegates to this conference hereafter who are users of tobacco; fourth, that no local preacher who uses tobacco will be ordained an elder."

A good example for clergymen East to follow.

M. GODIN, THE FOUNDER OF THE FAMILISTERE.

M. GODIN, the founder of the Familistère at Guise—a sketch of which appeared in the May number of this magazine—was the son of a blacksmith. He learned his father's trade, and made a tour through France with his tools, thus learning by experience the condition of the worker.

Of the mental quality or caliber of Godin's immediate progenitors, we have no information; but the moral sensibility of which Godin appears to have been capable from his earliest years, warrants the presumption that they were not deficient in that high domain of mental development which we term the moral and spiritual. The son of a workman, and of delicate constitution, he was from the first accustomed to the deprivations and disadvantages which separate the children of toil from the children of fortune. He noted, even in his childhood, the deplorable advantage which the rich hold over the poor, the employer over the employé, capital over labor. It became to him, even at that early time, a matter of serious thought and meditation. Sitting in the rude school-room, with the children of the workmen, the problem brooded in his heart until it became the object of his aspiration and conscience. We give his own description of his thoughts at this time: "I said to myself, if I were a teacher, I would teach these children better than they do here; and then I wondered if I ought to qualify myself for a teacher. Following this there always came another thought, the result of a deeper sentiment. No; I would apprentice myself to the manual arts; for through them I could give a great example to the world in the sphere where I should be called to act." Here is a remarkable instance of the altruistic principle operating in the mind of a child—a preponderance of social over personal considerations.

To fit himself for his grand human purpose, Godin applied himself to the industrial arts. His frail and delicate organization made the work difficult. Leaving his father's workshop for the city, he anticipated finding the means and advantages for the more advanced study of Industry. In this he was disappointed; for he informs us that labor kept him in the shop from five in the morning until eight in the evening. This deprivation and thralldom only deepened the purpose within him, and led him to the resolution that if he could ever raise himself above the condition of the laborer, he would persistently seek the way to raise labor from its degradation.

In searching for the key to this problem, it is evident that even while a workman, he made himself acquainted with the thought of the prominent social philosophers; yet it is evident, from a perusal of his "Social Solutions," that Godin was free from the danger which so frequently besets the philosophic student—the danger of becoming the slave of any especial system or school of thought. The elevation of his mind and the practicality of his purpose, precluded such mental servitude. He stood over these systems; he examined their genuineness and their quality as independently as the artist inspects the material with which he may well express his dream of beauty. He discovered the utilities and the limitations of these systems; and from the material they presented, he constructed an ideal of life and industry which the present order of society could enter upon and practicalize. His years of meditation upon the subject led him to discover that there is neither wisdom nor mercy in holding up ideals which the existing social order renders impracticable.

If we follow back the line of Godin's character and its unfoldment, we come upon the elments and the methods which insure success. He selected a purpose in childhood; one in which individual aims were directed to social ends. He did not seek for a purpose out of or beyond the order of circumstances in which his life had fallen; but he developed and consecrated those circumstances to social is-

sues. He did not wait and sigh for a great opportunity; but he set to preparing himself for a great opportunity. He must gain material wealth; he must store up mental wisdom. Having chosen his path and his work, he wandered into no byways, and made no side issues. The long years stretched before him, and even with the most successful diligence the promise of achievement was far distant. It was an aim which demanded the consecration of his entire energies. With blood and nerve, sinew and muscle, through years of painstaking industry, he wrought for the material basis necessary for the accomplishment of his purpose. For thirty-five years he gathered into his head and heart the philosophy of the different schools, the equipoise of his character rendering his entire servitude to any one of them impossible; but with that masterly completeness which touches the sphere of truth on all sides, he stood over these systems, and with an eye single to his purpose, selected such methods as, tending to the end he had in view, could yet be readily engrafted upon the present phase of life and society. He recast the wisdom of the schools in the mold of his own genius, and expressed the result in a practical arrangement which looks to the preservation, the development, and the harmony of human life; in a gospel of life and labor, as illustrated by the workingman's palace at Guise. In the unitary home, which the law of justice between labor and capital has there developed, in its conditions for physical, intellectual, and moral unfoldment, Godin has revealed to humanity that religion and science are necessary correlates, which, entering the same province, secure by their united action the harmonies of life and labor. This is a gospel that deserves the earnest attention of all who love our country and its prosperity; a gospel appropriate to an age of great industries. Let the rich moralize their wealth; let industrial palaces arise; and to the altars of such temples let us bring the accumulated treasures of science and philosophy, consecrating them to their holiest uses—the perfection of human life and the proper unfoldment of character.

AUGUSTA C. BRISTOL.

THE YOUNG FOLKS OF CHERRY AVENUE.

CHAPTER VI.

CONSCIENTIOUSNESS—A PLOT AGAINST SCIENCE.

TAL hurried through his chores the next morning, and when he sat down with the family to breakfast there was nothing for him to do after that but to polish his shoes, and look over the lessons for the day. It being review-day, however, his glance through the books was rapid, and at half-past eight he reported himself as ready for school.

"Why, you appear to be in a hurry, my boy," remarked Mrs. Manley with a look of inquiry.

"Yes, mamma, I'm going over to Deacon Faulkner's on the way, and that, you know, will take fifteen minutes."

"Is it about the broken fence you are going to see him?"

"Yes, mamma, and you know papa said that he would send Joe up from the mill with a new post and put it all right again."

"Ha, ha," laughed Clara, "I imagine that the deacon would not object to your being made an instrument of destruction to his old fence posts every day if he could have new ones set up in their place by so just a neighbor as Mr. Horace Manley."

"Mr. Faulkner is certainly the gainer by this accident," responded Mrs. Manley; "but we must not lose sight of the fact that, although the fence is old and weak, it nevertheless serves the purpose of a strong one in marking off the boundaries of its owner's land. No one

has a right, without Mr. Faulkner's permission, to enter upon it, and as it is an orchard, no horses or cattle are kept there. So a very firm fence is not required."

"Well, I think a fence along the road ought to be strong enough to stand when it's pushed against," put in Edith, "and if it's so old and rotten that it will fall down if you just touch it, it's the owner's business to put it up again."

"Yes, my child," replied Mrs. Manley pleasantly, "the owner should keep his fences in good condition; but it is our duty to avoid damaging them if they are weak. I would like to see the meadows and the gardens of Mapleville simply divided off by low hedges of evergreen; but that is quite out of the question, because they would not protect the inclosures against careless trespassers and loose animals."

"Why, I could run and jump over one of those hedges, and it would only be fun."

"And it is because there are so many people in the world, Edith, who are ready to jump over the bounds of propriety, in fun or earnest, that high fences of one kind or another are necessary."

"Then, mamma, I suppose you think that if everybody tried to do just right, all round here would be just like a great big garden, no ugly rail fences, or high picket ones being in the way," said Tal.

"Yes, the country would probably have the appearance of a grand park," returned his mother.

"That would be splendid, and I'm sure I wouldn't want to run over it; because I'd have enough pleasure in just looking at the gardens and the trees. But I must be off," and Tal quickly gave mother and sisters a parting kiss, and departed on his errand of justice.

"I guess I'll stay in school this noon," remarked Edith. "So give me a nice lunch, mamma, and be sure to put in two cookies."

"Seems to me Edie's forgot her manners," said Paulina archly.

"I think it must hurt her throat to say 'please,'" added Clara.

"No, it don't a bit. I must be always thinking how I should speak to please you," returned Edith sharply, and then flounced out of the room.

Mrs. Manley said nothing, but busied herself with domestic concerns, while Clara turned to the duties which belonged to her. Ten minutes later Edith came down dressed for school, and going to her mother said pleasantly:

"I'm ready, mamma."

"I see that you are, my child; and more than usually neat in your appearance this morning. You really make me feel quite proud when you take so much pains to be clean and orderly."

The girl stood with an embarrassed air, as if half ashamed to receive her mother's approval, so rarely was it deserved; and to relieve her Mrs. Manley said:

"If you wish to remain at school this noon you may, Edie; but you know I prefer to have you home to dinner."

"Yes, mamma; but Sophie and Millie, and one or two other girls stay on Fridays to draw. Miss Grace is giving them quarter of an hour's lesson, and she said I might try too."

"I certainly have no objection to your remaining for such a purpose. I will at once prepare your lunch."

"Please, mamma, put in the cookies."

"Yes."

"Ha, ha, ha!" rippled Paulie. "Edie's throat's got well, 'cause she give it such a hard rubbin' with the towel up-stairs."

Mrs. Manley made a neat little parcel of the lunch, with a red and white napkin folded around it, and handed it to Edith, who started for the door, but suddenly halted and asked:

"Oh, mamma, I'd almost forgot about the lecture to-morrow afternoon. All us girls are going, will you go?"

"I should like exceedingly to hear the lecture, it is so long since I have had the opportunity to attend one on Phrenology but I am engaged for Saturday afternoon, having to go over to Mrs. Elton, who, you know, is very ill, and read to her awhile, and help poor Alice a little in her housekeeping. Grace will probably be at

the lecture, and perhaps Horace, if he can leave the office."

"Well, won't you tell Grace to sit up near the column, on the right side of the hall, so I can find her? I might forget it."

"Yes, or Paulie will remember it for me. I know you have a great deal of play on hand Saturdays."

Dr. Welling gave his lecture that afternoon to a good audience. The next was much more largely attended, and the third, which occurred on the following Thursday evening, was heard by a full house. This display of interest induced Dr. Welling to give another evening lecture before leaving Mapleville, and that also drew a full house. The two principal doctors of the town were there—Dr. Miller, the venerable Presbyterian minister, and Dr. Whipple, whose trim little chestnut mare was every day seen going the rounds of visitation to the sick. He made his description of the brain, and the part it played in human life, so clear with the assistance of a liberal stock of portraits and plaster busts of great and wicked people, that the children of the town were deeply interested, and many were taken by their father or mother to his rooms at the hotel to have their characters read. Dr. Whipple had asserted his utter disbelief in the doctrines supported by the newcomer, and told those who mentioned Dr. Welling to him that the phrenologist was a fraud, and "hadn't an inch of anatomical ground to stand upon." So when his ruddy face was seen in the audience Thursday night it was expected that there would be a lively tilt between the champions; but they were disappointed on that score, but very much amused in a way that was not expected.

DR. WELLING AND HIS "ILLUSTRATIONS."

Our account of the lecture is taken from the Mapleville *Gazette* of that week, which reported it quite fully, and alluded to the visitation of "Prof." Welling as "one of the most interesting events that had occurred in town during the past year."

Soon after Dr. Welling opened his lecture, which had for its topic "Our Social Relations," a boy was seen making his way up to the platform with a folded paper in his hand. Dr. Welling paused, and taking the paper, quickly examined it, and then having written a few words upon it, returned it to the boy, who slipped down into the crowd, while the lecturer resumed his discourse. Having sketched the philosophy of the brain organism in its connection with human character as shown in the ties of home, family, and friendship, he said:

"Now, that I may the better demonstrate the principles that I have set before you, I would ask six or seven gentlemen of the audience to step forward and occupy these chairs upon the platform. As on past occasions, I will request you to nominate the persons who will serve my purpose."

Four or five names were called, and their owners pleasantly consented to submit to the lecturer's hands. Then Mr. Jessup, a lawyer-farmer of the town, well known for his humor, rose and said:

"If the lecturer please, I see an old friend of mine down near the door whom I should like to see upon the platform. Mr. Brown, ladies and gentlemen, the good-natured, chubby-faced man there in the blue coat. Mr. *Brown*."

Mr. Jessup then sat down, and amid much laughter and repeated calls for "Mr. Brown," the man in the blue coat got up and walked slowly through the passage to the platform, where those already seated welcomed him dryly with, "Glad to see you here and with us, 'Mr. Brown.'" Before he took his seat, however, he turned to the audience and said:

"As Mr. Jessup yonder has insisted upon my being set in this conspicuous place, I would ask him to join me in this unexpected kind of martyrdom."

There were calls immediately for Jessup, who came smilingly up and took a seat by "Brown."

The lecturer now went on with his demonstration, using measurements with tape and calipers to show the difference of living heads in size and shape in special regions; and briefly defining the parts performed by the organs of Friendship, Love of Home, Love of the Young, Conjugality, etc., meanwhile instancing this one or that one of his breathing specimens as illustrating his points, and thus, in the course of his remarks, making a brief outline of the domestic qualities of each. He particularly dwelt upon the farmer Jessup and "Mr. Brown," as they gave him the opportunity to draw a sharp contrast; and the frequent applause which followed a statement was an assurance of his correctness. Just before dismissing the gentlemen to their seats in the audience, he said:

"You must admit, ladies and gentlemen, that I am earnest in my endeavor to show the truth of my subject, and do not canvass for your good opinion by jests and witticisms at anybody's expense, and if you see reason for laughter in anything I may say, I take it that you mean to testify in that way to the correctness of my readings; but I would have you to understand that it is science which leads me to my conclusions, science which any one of you may acquire just as easily as he or she may acquire a practical knowledge of law, medicine, astronomy, chemistry, etc. You have but to study the principles and methods laid down in the text-books, and then the great volume of human nature lies wide open for your observation. Now here, for instance, are Mr. Jessup and Mr. Brown. One, as I have shown you, has nearly an inch more of breadth in the lower part of the backhead than the other, and the length of a line drawn from the center of the brain at the medulla here to the occipital spine here is three-quarters of an inch more in Mr. Jessup than in Mr. Brown. Both are hearty, cordial, generous men by the common consent of their neighbors; but their home dispositions differ much. Mr. Jessup is happy as a king in the midst of his family; home is a great, *big* word to him, and a child is a big item in the universe. I've but little doubt that he has a goodly number of olive branches of his

own, and probably two or three of other people's, for there is always room in his heart for one more, and in his home if its fire-place be wide enough, and fortune has denied them one under a father's roof."

A burst of applause followed this, for farmer Jessup had a large family of children, several of whom he had adopted, and was training to usefulness on his large farm. He was also the leading director of an orphan's home in the country town, and was often seen driving along with a little one snugly posted on the front seat by his side.

"Mr. Brown, on the other hand, has a benevolent consideration for children, but I think he has no reputation here or elsewhere as a nurse. He is evidently a man of culture and experience, and knows how things should be done at home and abroad for comfort and happiness, and no man likes more his upholstered arm-chair and quiet corner after the day's work is done than he; but at such a time he doesn't wish to have any robust babies sprawling on his knees or tugging at the ends of his neck-tie. If he be married it is likely that he found a wife somewhat later in life than is customary with the average man, and his wife is his intellectual companion as well as his housekeeper."

Another burst of applause followed, while Dr. Welling courteously handed his subjects down from the platform. All but Mr. Jessup, who remained, and when the noise had subsided the latter said:

"It is due to the lecturer to say that I had plotted a little against him, as my friends in the audience doubtless concluded, when I addressed 'Mr. Brown.' Here is a bit of paper which I sent up to Dr. Welling with this question: 'Will the lecturer be pleased to inform one of his audience if he knows Dr. Whipple?'

"And this is his answer: 'I have heard of the doctor, and may have seen him, but not to know him.' On this foundation I nominated 'Mr. Brown' as a suitable candidate for the lecturer's experiment, and thank him for his ready compliance, and the audience for its immediate appreciation of the joke and the neat way in which it was worked. Evidently Dr. Welling hadn't the slightest suspicion that in 'Mr. Brown' we had offered up our good-natured, bachelor physician to his scientific manipulations; and it is due that we should apologize for playing the little game upon him. As for myself, I shall endeavor to make amends by acknowledging that he hit me very close, and this is the first time to my knowledge that he and I ever met."

Mr. Jessup then sat down, and a buzz of approval went through the audience, which was mingled with cries of "Dr. Whipple! Dr. Whipple!"

The doctor got up, pulled out his handkerchief, blew his nose, and proceeded to say in his deliberate fashion:

"I will confess that I have been greatly disappointed to-night by the remarks of the lecturer. I came here at the instance of two or three acquaintances who told me that if I didn't hear him before he left Mapleville I should lose a good opportunity. I say I have been greatly disappointed, because I have heard an exposition of mental science in which I can pick no flaw; whereas about all I had ever heard of Phrenology before, from the few traveling lecturers who have dropped into Mapleville, has impressed me that it was arrant humbug. I went upon the platform for the purpose of watching the lecturer closely, and if the opportunity offered to ask him questions if he said anything that didn't seem to me in accordance with science. Most of you know that if I'm not much disposed to pet children, I do like a little lively discussion." (Here the people laughed heartily in assent). "Well, I must confess that I soon found that the lecturer had me on the hip about the cerebral organism, and that I was a little rusty in my reading, so I concluded to let him alone. I'm obliged to him for his discretion in showing up 'Mr. Brown's' peculiarities, for, to tell the truth, I was a little afraid he'd go further in his revelations and make me feel very uncomfortable before so many people who know me, I've no doubt, better than I do myself. I must say that Dr. Welling's method is scientific and open, and his readings of character, as illustrated to-night, have no guess-work or hocus-pocus in them. I had no idea before that Phrenology was a matter of the line and plummet, and must reverse my old opinions and say that the true phrenologist is a teacher of truth and righteousness. I see my old friend of our Presbyterian pulpit nodding his head to this, so I feel I'm quite safe in asserting it."

"Good for you, Dr. Whipple," was shouted by some one as the physician reseated himself amid clapping and laughter.

Dr. Welling then made some graceful remarks on the pleasure which the course at Mapleville had given him, expressing his regret that his engagements at other towns prevented him from remaining longer, and then dismissed the audience.

CLARE.

MILK AS FOOD.—No. 2.

WITHOUT pursuing the theoretical argument further, we stop to look at some considerations of a more practical nature. To the advocate of the free use of milk, we would say: Why that bad taste in your mouth? that brown fur upon your tongue? that rank odor from your body? that dull feeling in your head? that drowsy stupor after meals? Can you give a satisfactory answer? Can you tell why they who use only water as a drink, and drink water only when thirsty, rarely or never are troubled with such symptoms? Is there any other answer to be given, than that milk is highly organized animal matter, which becomes rapidly putrescent when subjected to a temperature like that of the blood, and which is carried by the circulation through every organ and every tissue of the body? You have noticed none of these results in your case? perhaps not. Users of tea or coffee, of beer or brandy, of tobacco or opium, often fail to see any of the deleterious effects upon themselves so generally ascribed to the use of these popular, but hurtful luxuries. Possibly, with strong digestive powers and great physical activity, all the milk used in rare cases may be well assimilated, and none of these unpleasant sequences be observed. But that, in most cases, they do exist, will hardly be questioned by any careful and impartial observer; and when, as is too often the case, cross and negligent attendants, untidy milkers, and slovenly dairymaids, with filthy, badly-lighted, and badly-ventilated stables, or no stables at all, foul and decaying provender, impure water, insufficient exercise, and uncomfortable conditions generally, combine their influence, the conclusion is inevitable that the supply of milk can not be of the best quality, if fit for use at all. That the lacteal secretion serves as a vehicle for the elimination of impurities from the body, does not admit of a doubt. Note the odor and taste of turnips, cabbages, wild garlic, ragweed, etc., in the milk and butter of cows feeding upon them.

These disagreeable odors and tastes are not the only things excreted in this way. Poisons, some of them of the most deadly nature, are thus carried off also. Before the woodlands were improved in the now famous Blue Grass region, in Kentucky, cattle running at large often suffered from short supplies. The early opening of the Buckeye buds, and the dropping of the mature fruits in their season, often tempted the hungry animals to feast upon them. Cows giving milk freely generally escaped injury; but the calves feeding upon their milk, and dry cows, did not fare so well. "The cows, or the calves, are Buckeyed," was often heard there in those days. Many recovered from the poisoning, but some died. In those localities where that mysterious disease known as "Milk Sickness" prevails, or did prevail in times past, a still more convincing illustration may be

found. Cows giving milk rarely have the disease, while their calves, and the whole family of the owner, feeding upon the milk, take the "Trembles," as it is called. Dry cows are also quite subject to it. They who know anything of this malady, need not be told that it often terminates fatally, both to the human subject of it and to his domestic animals. Without the use of milk and butter, many persons live in the same localities with impunity.

A gentleman and lady who spent some years as missionaries to the Indians where Omaha city now stands, long before the aborigines had been crowded from the homes of their fathers, are responsible for this statement: "Most of the whites connected with the mission, and with the Government agency, lived upon high and well-drained localities. The best pasturage was on the low grounds along the river and its tributaries, where fogs and malaria prevailed. The cattle grazing on these low lands being regularly milked, seemed free from disease. Persons connected with the mission and with the agency were subject to agues and intermittents only when they used milk as a part of their diet, and all such had it."

How can this be accounted for, except on the ground that the malarial poison was transmitted to them through the milk used as food?

The fearful consequences of using impure milk, and the general prevalence of its use, is occasionally brought to light by an examination of the condition of city dairies, and an inquiry as to the health of families patronizing them. A few hours spent in the study of the reports of such investigations would be interesting and profitable to any one seeking information in this direction.

Some eight or ten years since, the medical journals of Great Britain and this country contained an interesting and instructive report of an investigation into the causes of typhus fever, as it prevailed at Islington, near London. The number of cases was about 160, and nearly all belonged to families taking milk from one dairy. The few exceptional cases had taken meals and used milk with such families. The dairy was examined and found apparently in good condition. A more careful search revealed a tunnel, cut by rats, underground from beneath the drain at the rear of the stables, and opening at the other extremity into a tank at the opposite side of the yard. The water in this tank seemed pure, and was used for rinsing milk cans. In dry weather the cows were sometimes watered from it. These apparently trivial causes were deemed sufficient to account for the prevalence of the fever, and with their removal it ceased in that locality.

This case is briefly mentioned on page 49 of "Wilson's Handbook of Hygiene," where reference to the outbreak of scarlet fever at St. Andrew's, and of enteric fever at Perinth, in 1870, are referred to, and the distribution of the fever-poison accounted for in the same way. It is impossible to tell to what extent contaminated milk may be responsible for the dissemination of disease germs in any case, and it may play an important part in many cases where it is least suspected.

The conclusion from all this, and much more which might be added, may be briefly summed up as follows:

1. That milk is not natural food for adults.

2. That cows' milk is not natural food for human beings of any age.

3. That while, with some modifications, it may be the best available substitute for the natural food of infants, it should only be used when a substitute is indispensable.

4. That while good milk is better than many other things in use, it is wiser neither to use the milk nor the other things, when better food can be obtained.

5. That milk is often charged with the germs of disease, and with poisonous excretive matter, which are often unsuspected, and which, if suspected, could not be easily detected till their results are developed in the form of contagious or infectious disease.

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FALSE EXERCISE.

WE use this term to express a contrast to natural exercise. Every part of the system requires exercise, that it may have health and vigor; and in order that exercise may promote health, it should generally be gentle, not violent. Animals, if left to themselves, take exercise that is general in the main; they run, frolic, kick up their heels, and play fight, and thus set an example for human beings, who contrive methods of partial exercise, and thereby produce partial muscular culture, and sometimes overtax one part of the system while the other parts have too little activity. We have entered gymnasiums and seen young men struggle to put up dumb-bells weighing perhaps a hundred pounds. Now, this requires a very powerful effort, and tends to wrench the spine and produce an undue exertion of a part of the muscles, those of the chest and loins in particular. Some may say that the gymnast alternates the arms; but we answer by saying that because one strains the muscles of the right arm by excessive lifting, there is no reason why he should strain the opposite muscles by undue lifting with the left arm. If men would lift a pair of dumb-bells weighing, say ten pounds, one in each hand, and thus make the use of the muscles equal, simultaneous, and harmonious, and all within the just limits of power, it would be much better than to strain and struggle to put up one heavy affair. A great objection to the usual exercises in the gymnasiums is that the chief desire seems to be to outdo everybody else, and only those who are specially well endowed with muscular power make any show at all. Those who need exercise most for purposes of culture and growth, are ashamed to perform their little labor for fear they will become contemptible in the eyes of the robust. To see who can do the greatest amount of lifting, or perform the most wonderful feat, seems to be the law of gymnasiums. We do not now speak of public professional gymnasiums; some of them no doubt are managed judiciously, the exercises are not excessive; but in school gymnasiums, and in little home arrangements for exercise, there is a tendency to overdo in effort.

We remember a beam in the wood-house where "we boys," in our earlier days, would take hold with the fingers and pull the body up till the chin rested on the beam, and he who could do this the greatest number of times received the applause. We have tried this till the muscles of the arms, the pectoral muscles, and the abdominal muscles would be sore for a week. If we had performed this feat once or twice every day, that is, raised the body once or twice in a day, it would probably have been beneficial.

We had another violent exercise, which we called "pulling stick," which was performed by two persons seating themselves on the floor, putting their feet together, taking hold of a broom-stick and pulling against each other. We would pull till we could see stars, if the match happened to be pretty equal, and the muscles of the back would sometimes be so sore for a week that we could not stoop, or turn in bed. This is what we call unnatural exercise. Now, if a person would take that position and pull at a rope having a pully and weight, and raise fifty pounds, or two hundred pounds, it might not be a bad movement exercise; but to have two strong young persons pulling against each other, having their pride and ambition and pluck called into play, the parties are very liable to injure themselves for life; get a weak back or a stitch in the side, or otherwise strain themselves.

We like what are called "free gymnastics." The horse, the calf, lambs, and kids have free gymnastics; but the horse when he becomes older and is subjected to the training and control of men, is sometimes obliged to haul immense loads up steep hills or through bad places in the road, which work is as bad for him as "pulling stick" is for young men. Free

gymnastics are a series of exercises without dumb-bells, clubs, or other apparatus. In this method persons are not obliged to overwork. To practice this, let the person stand erect, fill the lungs, and strike out first one arm and then the other, then both, then advance one foot and strike out with one hand and then the other, and thus take exercise with the shoulders, arms, back, and legs. Persons can thus take abundant exercise and bring themselves to a state of perspiration, and at the same time incur no danger of a strain. In these methods the action of the muscles is harmonious, and may be vigorous or gentle, and always useful; besides, it costs nothing in the way of apparatus or tuition, and can be taken every night and morning and at midday by teachers, students, clerks, literary men, and all girls and women.

A series of such exercises every day would tend to build up the muscular system better than taking irregular exercise at a gymnasium once or twice a week, where one is very apt to be led to overexercise. When a person is half dressed in the morning, or half undressed at night, he can take exercise that will make the blood fairly tingle in the extremities, relieving the brain and vital organs, especially the digestive organs, and thus promote sleep at night, and growth and vigor during the day. Thousands of bookkeepers and others in sedentary employment are suffering for the want of exercise; and though they may visit the gymnasium occasionally, they often feel too nervous, tired, and restless at night to go to the gymnasium, while if they were wise they could just step out of sight half a dozen times during the day and take three minutes of rapid, energetic exercise, without apparatus, without costing money or time, and without danger of overwork. This exercise could also be taken Sunday morning, Sunday night, any time, and almost anywhere.

The modern methods of *lifting* are excellent if they can be kept within judicious bounds. In New York and Brooklyn, and in other large cities, there are several places where the lifting-cure, as it is called, is available, and as this is under the careful supervision usually of a doctor, excess is out of the question. One is not allowed to go beyond the limits of constitutional strength, and as the apparatus is fixed with springs, it isn't exactly a dead weight. By lifting this slowly, as it ought to be, every muscle can be brought into simultaneous action and harmonious requisition. We have no doubt that the effect is most salutary. But human nature is such that it becomes perverted; there is a desire for strife and superiority which leads one to try how much he can do. These lifting machines, however, do not offer much opportunity to strain the constitution by extra effort, as putting up dumb-bells would, because the lifting is done in such a way as to use all the muscles equally.

Children if left to themselves make their exercises general and harmonious; but even little girls in jumping the rope learn to count, and see who can make the greatest number of jumps, and some have been known to keep this up until they fainted, and in one or two cases sudden death has occurred from heart trouble by merely jumping the rope.

People as they advance to old age should take easy, active exercise. One who walks considerably, keeps his feet and legs in better condition than those who keep themselves housed up and sit a great deal, or always ride when they can. Nothing shows age more than a tottering step, and he who keeps his legs in good working order by a good deal of walking, manages to keep up a very general circulation, and, of course, promotes the general health, and in this way will avoid many of the pains which age is usually made accountable for. If a man use his bones and muscles as he advances in years, he is not half as likely to fall; or if he fall, to break a bone, because the bones are kept in healthful condition by means of daily exercise. Everybody knows how, if the arm be suspended in a sling, from any cause, it becomes soft and flabby. In the same way we think that

the bones become weak and brittle by non-use, nature declining to furnish them with food or nutritive support if they are not called into use. If an elderly person can stand well on his feet, be brisk and nimble in walking up and down stairs, he not only has more comfort and independence, but appears better, more vigorous, and younger, and isn't half as liable to accidents as those are who, by taking but little exercise, become clumsy, awkward, and ungainly in their walk.

NELSON SIZER.

HUMAN OBLIGATION IN OUR SOCIAL RELATIONS.

AN interesting theme of inquiry is, How much of human responsibility and human obligation grow out of our relations to each other as social beings? And further, How much of right and wrong, of good and evil, have their origin in the social system, the creations of that system, and would not exist only for and because of it?

Let us suppose that man could exist as a perfect recluse, entirely and absolutely isolated from his fellows, uninfluenced by them, and ignorant of their existence. If such a condition were possible, to what extent would obligation and responsibility cease? moral law and conscience become nugatory and inoperative? His conduct would be regulated alone by his physical wants and necessities; that which conduced to his physical comfort and present good would be right, and the contrary wrong; or rather, the first would be the only good, the latter the only evil. In this condition would not conscience be dormant; or, in other words, not being needed, would it have an existence?

I leave out of the question any suggestion as to his relations with his Creator. What they might be will not be here considered. It is, however, not likely that he could have any very definite or clear conceptions of what he was, or how he came to be such.

Then, is our social state the creator of our consciences? Is it the originator of good and evil in the world? Are holiness and sin only the outgrowths of circumstance in our social condition? Thou shalt not steal; thou shalt not kill; thou shalt not covet—all the commandments nearly—are based on our condition as members of human society. Is it true, then, that society governs, and must govern, absolutely? It would seem so. Society makes its laws, from which there is no escape. As it is impossible for us to exist except as social beings, so it is impossible for us to escape the responsibilities and obligations which society imposes.

Is it true, therefore, that society not only governs and must govern absolutely, but that it defines right and wrong, good and evil, for us, and builds up our moral code? And have we, as individuals, no voice in the matter?—have we no more voice in the matter than the drop of water has in causing the roar of the waves? And as the drop of water is lost in the ocean, so our individuality is lost in the great volume of associated humanity. Nor does the comparison end here. As the wave or the tide forces the drop hither and thither without any agency of its own, so is the individual ruled and controlled by the all-powerful and ever-acting force belonging to our social state.

Again, in each the force is physical in its ultimate. For, however much we may descant upon the law of love and moral suasion, it is physical force that keeps our social system from a state of anarchy. Moral precepts and statute laws and constitutions, which we call government, are good and necessary as defining our obligations and duties, but they are as ropes of sand unless backed and maintained by the strong arm of physical power. Thou shalt not steal, is good as a moral or statute law; but it needs physical force to render it effective. The truth is, all hu-

man government must, in the nature of things, be based on force.

Yet it is not safe to say that the individual will must be bound by all that society demands. And it is perhaps one of the hardest problems to solve in the whole system of ethics to determine the point at which the individual will shall cease to operate, and the edict of society assume control.

These thoughts are thrown out, thus crudely, in the hope that some abler pen than mine may take them up at length in a future number of the JOURNAL. T. G.

BUTTER AND OLEOMARGARINE.

THESE two substances are much alike in the respect of being, aside from the salt put in to give them a flavor, entirely composed of fat and water. This fat is simply heating material when introduced into the human body; but as the bread and vegetables and flesh commonly used as food contain a large proportion of fat or oil, butter is an unnecessary adjunct to a meal. Probably no article gives the housekeeper more annoyance than butter, so various are the tastes of people who use it with regard to its quality. Two packages may be equally good and of equal price, but one will be accepted as excellent and the other rejected as abominable. Now that oleomargarine, or the butter manufactured from animal fat, has become a prominent article of commerce, the difficulty of procuring good, "wholesome" butter is greatly increased. Many housekeepers look with suspicion on even that which pleases their palates, so close is the artificial product to that derived from milk.

Many ways have been suggested for the detection of the oleomargarine. One of the best is the microscopic test. Under the glass, milk-butter shows a mass of globules similar in size and appearance, with intermediate layers of salt and water. Oleomargarine shows a mass of what appears to be fan-shaped and fibrous crystallizations entirely different in character and appearance from butter. Another test, commended by Professor De Smedt, is the following: A piece of oleomargarine, the size of a walnut, is placed in a wine-glass and ether poured on sufficient to cover and dissolve it, which is hastened by stirring with a spoon. The whole becomes soluble, but the salt is immediately precipitated, when the liquid mass is poured off into a saucer, or, what is better, a small glass plate or saucer. The work of evaporization commences at once, and continues until every trace of the ether is gone, leaving the stearine or tallowy substance openly exposed with its offensive odor and appearance. The character or appearance of good butter is not changed by a similar test; the fatty substance left after the evaporization of the ether retaining the odor of pure butter totally unlike that of the stearine from oleomargarine. This test Professor De Smedt thinks better and every way more satisfactory than by the microscope. As a general thing, however, it is claimed that the artificial article is not so dense as pure butter, and usually has a whitish appearance on the outside. So far as the effect of either sort upon the health is concerned, we suspect that there is little or no difference. Some chemists, in fact, have stoutly asserted that the oleomargarine is purer than the ordinary butter.

It seems true, at any rate, that the factory article is working its way further and further into the provision trade, and is therefore becoming extensively used: a state of affairs which indicates that people are either unable to detect a marked difference between it and milk butter, or that the difference in taste is not commensurate with the wide disparity between the cost of oleomargarine and the best creamery products.

On the whole, it would be better if butter were not eaten at all; the best contains so little real nutrition that it is a most expensive article for the table, and its liberal use in cookery and otherwise is generally attended with more or less functional disturbance in the stomach and liver.

THE LITTLE SHOES DID IT.

A YOUNG man, who had been reclaimed from the vice of intemperance, was called upon to tell how he was led to give up drinking. He arose, but looked for a moment very confused. All he could say was, "The little shoes, they did it." With a thick voice, as if his heart was in his throat, he kept repeating this. There was a stare of perplexity on every face, and at length some thoughtless young people began to titter. The man, in all his embarrassment, heard this sound, and rallied at once. The light came into his eyes with a flash; he drew himself up and addressed the audience; the choking went from his throat.

"Yes, friends," he said, in a voice that cut its way clear as a deep-toned bell, "whatever you may think of it, I've told you the truth—the little shoes did it. I was a brute and a fool; strong drink had made me both, and starved me into the bargain. I suffered—I deserved to suffer; but I did not suffer alone—no man does who has a wife and child, for the women get the worst share. But I am no speaker to enlarge on that; I'll stick to the little shoes I saw one night when I was all but done for—the saloon-keeper's child holding out her feet to her father to look at her fine new shoes. It was a simple thing, but, my friends, no fist ever struck me such a blow as those little new shoes. They kicked reason into me. What reason had I to clothe others with fineries, and provide not even coarse clothing for my own, but let them go bare? And there outside was my shivering wife, and blue, chilled child on a bitter cold Christmas Eve. I took hold of my little one with a grip and saw her feet! Men! fathers! if the little shoes smote me, how must the feet have smote me? I put them, cold as ice, to my breast; they pierced me through. Yes, the little feet walked right into my heart, and away walked my selfishness. I had a trifle of money left; I bought a loaf of bread, and then a pair of shoes. I never tasted anything but a bit of bread all the next day, and went to work like mad on Monday, and from that day I have spent no more money at the public house. That's all I've got to say—it was the little shoes that did it!"

Could there be a more powerful temperance lecture than this?

NOTES IN SCIENCE AND AGRICULTURE.

Antiquity of Wheat. — Wheat has been in use for bread since the earliest antiquity. Its origin can not be authentically traced, nor are the millions who use it much concerned on that head, as long as they have plenty of the flour which the nourishing article produces. It was introduced into this country, according to a writer in the *American Miller*, in 1539. As to its cultivation, this may be true, but there is good reason to believe that it was brought over with Columbus in one of his voyages at an earlier period. Its discovery is attributed to have been by chance on this continent, the story of which, as told by the *Miller*, runs in this way: A slave of Cortez found a few grains of wheat in a parcel of rice, and showed them to his master, who ordered them to be planted. The result showed that wheat would thrive well on Mexican soil, and to-day one of the finest wheat valleys in the world is found near the Mexican capital. From Mexico the cereal found its way to Peru. Marie D'Escobar, wife of Don Diego de Chauves, carried a few grains to Lima, which were planted, the entire product being used for several successive crops. At Quito, Ecquador, a monk of the order of St. Francis, by name Jodosi Bixi, introduced the new cereal; and it is said that the jar which contained the seed is still preserved by the monks of Quito. Wheat was introduced into the present limits of the United States contemporaneously with the settlement of the country by the English and Dutch.

A Floating Island. — Among the many natural curiosities of Tuolumne county it is not generally known that there is a "floating island." Up in the "Siskiyous," lying like a pearl in the great mountain chain, is Squaw lake, a beautiful sheet of water, now utilized by a mining company as a reservoir. For many years the lake has been a favorite and delightful resort for fishing parties, and contained nearly in its center an island, comprising about an acre of ground, covered with luxuriant grass and a growth

of willow and alder. It was never dreamed that the pretty little island was not terra firma, but when the bulkhead across the outlet of the lake dammed up its waters, the island rose slowly until it had been elevated fully sixteen feet above its original level. It would be a question for the naturalist rather than the geologist to determine the age of this floating island, as it is evidently made up entirely of decayed vegetation. Perhaps at some remote period the roots of a tree, uptorn by the mountain storm, drifting out in the lake, formed the nucleus from which the island has grown, but it seems singular that it should have remained anchored and unchangeable in its position. The locality is much frequented by pleasure-seekers, who will hereafter notice the increased elevation. —*Jacksonville Sentinel.*

What will be asked the Farmer.—The editor of the Prattsburgh (N. Y.) *News*, very appropriately suggests to the readers of his lively paper that, "the next United States census will be completed during the month of June next, and there is hardly anything which will do more to render it easily taken and correct than for the farmers (from whom principally the statistics will be gathered) to begin now to prepare answers to the questions of the census-taker. He will want to know how much you had in 1879 of acres and bushels of wheat, corn, oats, rye, barley, buckwheat, and potatoes; how many bushels merely of pease and beans; number of acres and value in product of orchards and vineyards and small fruits; number of acres and tons of hemp and hay; bushels of clover, flax and grass seeds; acres and pounds of hops and flax; bees—number of hives and pounds of wax and honey; sugar-cane—acres, hogsheads of sugar and gallons of molasses; sorghum—acres, pounds of sugar and gallons of molasses. Of the crop of the calendar year 1880 the officers will want the number of fleeces and pounds of wool; pounds of maple-sugar and gallons of molasses. Of the yield during the twelve months from June 1, 1879, to May 31, 1880, he will want pounds of butter and cheese, gallons of milk sold, value of animals slaughtered, value of products and acres of market gardens, value of forest products, value of home manufactures."

Experiments with Seed Corn.—A subscriber sends us this apt selection: "Four boxes of earth alike in quality and exposure to light and heat, were planted at the same time with corn from a single ear and placed recently in a physician's office. In one box dry corn was planted; in another, seed previously soaked in clean warm water; in the third, seed that had been soaked in a solution of lime-water; in the fourth, seed soaked in chloride of lime and copperas water, equal parts. One week afterward, the dry corn had not germinated, the corn in the second box had just commenced to sprout, that in the third box was just showing its green blades, and that in the fourth box had grown nearly three inches high. Copperas water will prevent birds and worms from eating the seed, and one pound of the dry copperas will soak seed enough for twenty acres."

Setting a Hen.—The following very funny letter appeared in a number of the *Poultry Monthly*. It may appear out of place in this department, yet—"Meester Verris—I see dot mosd efferpoty wrides someding for de shicken bapers nowatays, and I tought praps meppe I can do dot too, as I wride all apout vat dook blace mit me lasht summer; you know—oder of you don't know, den I dells you—dot Katrina (dot is mine vrow) und me, ve keep some shickens for a long dime ago, und von tay she sait to me 'Sockery,' (dot is mein name), 'vy dond you put some of de aigs under dot olt plue hen shicken, I tink she vants to sate.' 'Vell,' I sait, 'meppe I gess I vill,' so I bicked out some of de best aigs und dook um oud do de parn fere de olt hen make her nesht in de side of de haymow, poud five six veet up; now you see I nefer vos ferry big up und town, but I vas pooty pig all de vay around in de mittle, so I koodn't reach up dill I vent und get a parrel to stant on; vell I klimet me on de parrel, und ven my hed rise up by de nesht, dot olt hen she gif me such a bick dot my nose runs all ofer my face mit plood, und ven I todge pack dot plasted olt parrel he preak, und I vent town kershlam; I didn't tink I kood go insite a parrel before, put dere I vos, und I fit so dite dot I koodn't get me out efferway, my fest (vest) vos bushed vay up unter my arm-holes. Ven I fount dot I vos dite sthuck, I holler, 'Katrina! Katrina!' und ven she koom und see me shtuck in de parrel up to my armholes, mit my face all plood und aigs, she shust lait town on de hay und laft und laft, dill I got so mat I sait, 'Vot you lay dere und laf like a olt vool, eh? vy dond you koom bull me oud?' und she set up und sait, 'Oh, vipe off your chin, und bull your fest town,' den she lait back und laft like she vood shblit herself more as efer. Mat as I vas I tought to myself; Katrina, she sbeak English pooty goot, but I only sait, mit my greatest dignitude: 'Katrina, vill you bull me oud dis parrel?' und she see dot I look pooty red, so she sait, 'Of course I vill, Sockery,' den she lait me und de parrel town on our site, und I dook holt de door sill, und Katrina she bull on de parrel, but de first bull she mate I yellet, 'Donner und blitzen, shtop dat; dere is nails in de parrel!" you see de nails bent down ven I vent in, but ven I koom oud dey schticks in me all de vay roundt; vell, to make a short sthory long, I told Katrina to go und dell naypor Hausman to pring a saw und saw me dis parrel off; vell, he koom, und he like to shblit himself mit laf too, but he roll me ofer und saw de parrel all de way aroundt off, und I git up mit half a parrel aroundt my vaist; den Katrina she say, 'Sockery, vait a little, till I get a battern of dot new oferskirt you haf on,' but I didn't sait a vort. I shust got a nife oud und

vittle de hoops off und shling dot confoundet ole parrel in de vood pile.

"Pimeby ven I koom in de house, Katrina she sait so soft like: 'Sockery, dond you goin' to but some aigs under dot olt plue hen?' den I sait, in my deepest woice, 'Katrina, if you efer say dot to me again I'll get a pill from you, help me chiminy cracious,' und I dell you she didn't say dot any more. Vell, Mr. Verris, ven I shtep on a parrel now, I dond shtep on it, I git a pox.

"Werry drooly yours,

"SOCKERY KADAHOUT."

Prohibition of the Telephone in ENGLAND.—How British "Conservatism" works against the practical and useful sometimes, is illustrated in the fact which was announced by the London *Times*, that the English Government is about to take measures practically equivalent to a prohibition of the telephone, or which at least will put a powerful check upon the extension of its use. There are no telegraph companies there, but the whole telegraphic business is under the government control solely, and combined with the post-office, while at every post-office there is a telegraph office also. The post-office administration has found that the extension of the use of the telephone considerably decreases the revenues of their business, because when people can talk over the wire they don't want to send expensive telegrams or letters, with long delayed answers, and it has become a legal question if the telephone be not an infringement upon the government privilege of transmitting telegrams as well as letters.

How is this for the enlightenment and liberty of the "tight little island?"

Growth of the Eucalyptus.—Strangers visiting Oakland and Alameda notice graceful trees standing much higher than any of the ancient oaks. These are the famous Eucalypti, which, although planted only ten or twelve years ago, have shot up into young giants. Some of these are seventy feet in height, measuring seven feet eight inches to seven feet eleven inches in circumference three feet above the ground. It became necessary to remove one in Alameda not long ago, to make room for improvements. The tree, only ten years old, measured twenty-six inches in diameter at the collar, with a long tapering trunk, fit for a sawmill, at least twenty feet in length. Some of the timber was shown to a carpenter, who, after a deliberate examination, pronounced it hickory, having all the toughness, and, as the carpenter expresses it, "cheesy" cut of the best ash or white oak. There is nothing, unless it is a mortgage on one's homestead bearing two per cent. per month compound interest, that grows as fast as a Eucalyptus, and it is not improbable that a well-planted grove of them would overtake and capture the mortgagor. An amount of timber equalling one cord of wood being planted, the growth will be for the first year eighteen cords; the second, fifty-four; the third, one hundred and twenty-five; the fourth, two hundred and fifty; the fifth, four hundred, and so on. No other timber known grows with this rapidity. Flourishing in all kinds of soils, and equal in quality to the oak and hickory, it bids fair to be of the greatest value to California, which has much need of a timber suitable for wagons and machinery.

"How(e)" to Clean Lamp-Chimneys.—"Howe" tells the *Inter-Ocean:* "I have been night operator on railroads for over twelve years, and know how to clean lamp-chimneys, and want to tell the 'wimmin folks' how to do it. Whittle out a stick half an inch square, and, say, a foot long. In one end drive four or five small nails, brads, or small tacks, letting them project a quarter of an inch, then set your lamp-chimneys for a moment where they may become cool as possible; next take a piece of soft rag, fold or twist it into a bunch, place it in the chimney, and taking your stick place the end containing the nails on the cloth and it will be seen that the stick acts as an arm, and the nails as fingers, to grasp the rag. Now all that remains is to moisten the inside of the chimney with the breath and rub, repeating the breathing into the chimney often as necessary. I can clean as well and twice as quickly this way as by water or powders. Then lay your stick and rag away for another time. Try this, and with a little practice you will be delighted with the ease with which you can make a chimney sparkle."

On the Use of Plaster of Paris.—The plaster may be made to "set" very quickly by mixing it in warm water to which a little sulphate of potash has been added. Plaster of Paris casts, soaked in melted paraffine, may be readily cut or turned in a lathe. They may be rendered very hard and tough by soaking them in warm glue size until thoroughly saturated, and allowing them to dry. Plaster of Paris mixed with equal parts of pumice stone makes a fine mold for casting fusible metals; the same mixture is useful for encasing articles to be soldered or brazed. Casts of plaster of Paris may be made to imitate fine bronzes by giving them two or three coats of shellac varnish, and dusting on fine bronze powder when the mastic varnish becomes sticky. Rat holes may be effectually stopped with broken glass and plaster of Paris. A good method of mixing plaster of Paris is to sprinkle it into the water, using rather more water than is required; when the plaster settles, pour off the surplus water and stir carefully. Air bubbles are avoided in this way.

Des Cartes' Cranium.—It has been asserted that this great French philosopher had a small brain, thus giving the lie to Phrenology. Dr. Le Bon finds the cubic capacity of his skull to be 1,700 centimetres, which exceeds by 150 centimetres the average of Parisian crania of the present time.—*Exchange.*

Mrs. C. Fowler Wells, *Proprietor.*
H. S. Drayton, A.M., *Editor.* N. Sizer, *Associate.*

NEW YORK,
JUNE, 1880.

CABINET COLLOQUY.—No. 8.

PHRENOLOGY AS A SCIENCE.

A LATE visitor at our rooms expressed himself "much entertained" by the unique collection of busts and portraits upon the walls, adding, with a smile of ill-concealed cynicism:

"I can not help wondering how it is you so zealously prosecute a business which has no scientific basis."

"Are you conversant with the subject which is here illustrated?" we asked.

"Well, no, I can not say that I have taken much time to look into Phrenology; but then, you know the weight of scientific authority is against it," he replied.

"We know that some prominent writers have made disparaging allusions to it, with scarcely a show of argument, and others have simply adopted their dicta. As for a thorough-going endeavor to refute its principles, we are not aware of one since the days of Sir William Hamilton, and if you know of anything recent in this line, we should thank you for the reference to where it can be found."

"Really," said he, "I can not give you any such reference; but it certainly is true that in scientific circles your subject is not regarded, at least generally, as belonging to the domain of science."

"We are aware, sir, that there remains a good degree of the old prejudices against Phrenology, which once greatly hindered the work of its early advocates, and that they have to-day assumed the mantle of science. May we ask you what you understand by 'science'?"

"I regard science as that comprehensive term which relates to the demonstrated facts of nature."

"Very good; we suppose a lexicographer would define it in some such terms as these: Knowledge arranged or classified according to its relations to general principles, or truths. Science fundamentally means *knowledge.* Now, knowledge of nature is obtained through observation of physical phenomena. A peach-tree has certain characteristics; they are seen in its mode of growth, wood, bark, leaf, flower, and fruit, and when once fully noted by an observer, they enable him to distinguish the peach from other kinds of trees wherever he finds it. Deposits of gold occur in connection with certain quartzite rocks, and wherever those rocks abound gold exists. These are facts, with definite relations, and as such form part of human knowledge or science. Now, wherein do the data of Phrenology differ philosophically in their origin from these generally acknowledged facts?"

"Why," returned our visitor, "the difference between Phrenology and the sciences of pomology and geology is marked, in my opinion. Men have simply gathered together the results of investigation with regard to them, and drawn inferences from them which are subject to the

revision of anybody who may devote himself to their study. But the facts being supplied by nature are positive, and although observers may differ a little in their methods of classification, fundamentally they agree. The data of Phrenology, however, are variable, no two heads being precisely alike; and then, your doctors appear to have been more anxious to formulate a beautiful symmetrical system than to follow nature. Hence, the theory is more fanciful than real. This, I grant, is not my own opinion, but the opinion of others for whose authority I entertain high respect."

"We understand you, for nearly all of those who protest against the scientific character of Phrenology are in your position. They are not personally conversant with its principles or its history. They have the impression that Gall and Spurzheim formulated its principles and organology in their study, and searched for parallelisms in human nature to sustain their already-made theory. This fancy is entirely on the side of the skeptics, for the fact is that the first phrenological observers were trained physiologists, and proceeded in their study of mental phenomena just as the student of natural history does. They did not entertain any preconceived notions as to the parts of the brain in which certain of the faculties were to be looked for, but merely observed and noted facts, until a vast array of data were accumulated. When they began to classify these, with the view to mapping the brain, it was found that organs of a like class grouped themselves together; the Intellectual, for instance, all lay in the anterior lobes; the Social in the posterior region; the Religious sentiments in the superior parts; and the Propensities in the lower lateral parts. This fact was sufficient in itself for the formulation of the science of mind. Now, good sir, if I say to you that a large development of a particular region of the head is invariably accompanied with a certain characteristic, is not this co-ordination of phenomena perfectly accordant with the canons of science? Suppose that you knew a man who was given to paroxysms of rage, which put physicians entirely at a loss for their explanation beyond the opinion that some disease of the brain was their cause, and a learned phrenologist, on being invited to examine the man, should say that the location of the disorder is in the region of the ear, the organ of Destructiveness being abnormally excited. Suppose, further, that in accordance with this diagnosis, inquiry should be made, and it were found that the man had been struck in sport with a cane some time before, the location of the injury being at the place designated by the phrenologist. Suppose now, further, that a surgeon should trepan the skull there, and find, on lifting the excised portion, a spicula of bone half an inch long which had penetrated the convolutions and caused the excitement. Suppose, further, that on the removal of this source of irritation the man began to improve in general health, his fits of rage ceased and he was the gentle, quiet person he had been known to be before the injury. Could you, with all this in view, deny that the diagnosis of the phrenologist possessed the qualities of true science? Yet this is but the rehearsal of an actual occurrence recorded by Dr. A. L. Wigan in his "Duality of the Mind," and is one of hundreds of cases in which disease of the brain has confirmed the phrenological localization."

"Candidly," said our visitor, "this method of putting the case is purely scientific; and if your deductions have been obtained in this way, I can not see how the learned generally avoid recognizing Phrenology as among the sciences."

"No principle, especially that of localization, has been formulated, except as a necessary deduction from thousands of facts, and we invite the skeptic and the objector to go over the ground and see for themselves whether or not it is truth we advance. You will find, if you consult the history of our subject, that many of Phrenology's staunchest advocates were at one time among its bitterest foes; but being induced to look into it to examine its groundwork, they were converted. If scientific men showed half the toleration for Phrenology that they exhibit toward mere theories in astronomy, geology, biology, etc., we should have them all on our side, for the data they readily accept in support of their favorite theories are not as definite, abundant, and convincing as what Phrenology arrays in its behalf."

"You appear to have a very considerable following, and doubtless number many representatives of the learned professions?" remarked he, in a tone of inquiry.

"Yes, many distinguished physicians, clergymen, teachers, etc., accept the principles of Phrenology, and that fact in itself should go a good way toward counteracting the inherited prejudice and class conservatism, which appear to be the only real antagonistic influences. However, recent experiments in nervous function, by conservatives too, are strongly in our favor."

"You allude to those of Ferrier, I suppose?"

"Yes, Professor Ferrier in Scotland, Broca in France, and others, are feeling their way toward us, with the assistance of electricity. They are removing impediments, one by one, which they alleged were in the way to an acceptance of Phrenology, and it is most probable that ere long they will stand practically on our side, but with a formulary of their own devising. We will not object to that, however. 'The rose by any other name,' you know.

"Well," rejoined our visitor, smiling, "you can afford to be generous if you have been in the possession and enjoyment of so great a truth so long. But I have been occupying too much of your time, and quite forgetting, in the interest which your subject has suddenly awakened in my mind, an important business engagement. I must therefore bid you good-morning, in the hope of seeing you again soon, and obtaining some hints with reference to entering upon a course of study to acquaint myself somewhat with the doctrines and principles of phrenological science."

A "CORNER" WITH POSSIBLY GOOD EFFECTS.

THERE are instances in which unscrupulous men may be serviceable in promoting the welfare of society when they are only seeking to carry into effect certain motives of gain. These instances are rare enough we must admit, and we will admit also that the good done is no part of the intention of its workers; but an indirect outcome which perhaps they would rather not have occur. Everybody knows what a "corner" in commercial affairs means. A few men, thinking that

they see an opportunity to control temporarily the sale of some staple article of trade, combine to buy all there is of it in the market. If they succeed in obtaining such control, they of course advance the price according to their desire for gain, and they who need the article must pay the price to get it. This is a "corner," and whatever may be the business view of such an operation, when tried by high moral standards it is seen to be a trick so reprehensible as to merit the contempt of upright, honorable men. For instance, a few months ago, in the midst of a large export of wheat to Europe, certain "smart" dealers in grain contrived to "corner" that article of necessity so that for weeks several hundred vessels were kept at moorings in the neighborhood of New York waiting for cargoes. Probably 5,000 men suffered for lack of employment during that time, while the loss to the commercial interests of the country was great. If the men who engineered this "corner" made sudden fortunes by it, their gains were at the great loss and damage of a large number of others; thus illustrating the claim of philosophers like Mr. Ruskin that he who wins large gains in a short time does so at others' loss.

At this writing there is a rumor afloat that a "corner" has been effected in opium, and that the price, which has already been about doubled, will rapidly advance. The morality of this transaction is essentially no better than that of the one previously mentioned; but it will probably have the desirable effect of reducing the number of opium users, which has been on the increase for several years.

Can not these "smart" operators effect a permanent "corner" in whisky? We should be glad to see that precious beverage locked up by a combination among the dealers so that a quart of it would cost twenty-five dollars. No doubt, even in that case, some would be found who could and would pay that much for their favorite "poison," but the rank and file of drinkers would, like the fox as he gazed at the inaccessible grapes, express their disgust with the liquid.

HAND READING.

A WESTERN man has lately made a bid for fame by publishing a little book on chiromancy. He entitles it, "Mysteries of the Hand," and assuming in the start that "the hand represents the man," proceeds to lay down a system of rules by which fingers, palm, and back are made signs of character.

Of course the idea is as old as the Zingaree race, and some noteworthy points have been made thereon by Desbarolles and other writers; but to formulate a system of philosophy upon the manual anatomy, and to ask us to accept it when there are better means for studying human character, well known and well attested, is at the least unnecessary. We do not deny that there is character in the hand; neither can it be denied that there is character in the foot. So, too, the nose, the eyes, the ears, the lips, the chin have their relations to man's psychology, and men have written with a profound show of learning on them. Further, the pose, the walk, the voice, the language indicate character, and, in fine, the whole physique from scalp to toes may be studied for its signs of the mental nature.

But all these have their degrees of doubt, and no two observers are to be found whose opinions so closely tally that

a rule may be established which may be implicitly followed. The body and its members may indicate the quality and the temperament; but the mental characteristics, disposition, appetence, intellect must be sought for at the organic source of their manifestation, the brain.

Having already at hand a system carefully formulated on grounds of reason and the facts of nature, why need we to resort to mere conjecture? We can rely upon the showings of the brain, why turn to hand or foot? It seems to us that those gentlemen who prepare books like "The Mysteries of the Hand" may find some amusement in the labor they assume; but the ultimate conclusion must be far from compensating for the time spent or wasted.

INSTRUCTION IN PRACTICAL PHRENOLOGY.

TEN thousand people are feeling the need of a better knowledge of human nature and human character, and not a few of these are anxious to take instruction in mental philosophy, at some expense of time and money; while some are resolved to make themselves thoroughly familiar with Phrenology, Physiology, and Physiognomy, so as to qualify themselves to preach, practice the law, or teach, or work successfully in other fields. It requires many years to learn to build a wagon, a ship, a house, to make a set of harness, or to buy and sell goods wisely, or manage any business which involves risk and responsibility. It takes years of study to learn the science of medicine or law. It is not strange, therefore, that few persons understand human character.

In consequence of this need the American Institute of Phrenology was organized, and for the express purpose of teaching human science according to its latest developments and affording the fullest knowledge that is possessed on the subject. The next session, that for 1880, will open on the first day of October, and continue for about six weeks.

The aim is to prepare students for lecturing on Phrenology and Physiology, and for practicing mental science as a profession, although one-half of our students attend as a means of general culture, and to fit them the better to perform the duties of their profession and vocation, whatever it may be. If every theological seminary, every school of law, every normal school, and every business college had, in its course of study, careful instruction in Phrenology, it would be the most profitable part of their whole curriculum; because this science teaches human nature, and every profession has to deal with human character in some way, and he who understands the science of human character can most successfully relate himself to the world in general. As man is one great feature in all worldly affairs, he who understands him best will best fulfill his duty.

Any person who would like to obtain special information in regard to the course of study referred to, may write for a circular to the "American Institute of Phrenology," 753 Broadway, New York.

THE MILLERS' FAIR.—The millers are to have an Exhibition of their products in Cincinnati during June. Doubtless there will be a fine display of the different grains and grades of meal and flour, with illustrations of the many processes of manufacture. These gentlemen will have a good opportunity to show how excellent a quality of unbolted flour they can produce; and doubtless they will not be backward in this respect, notwithstanding the foolhardy attempt of some of them at a recent convention to demonstrate that superfine flour is more nutritious.

Our Mentorial Bureau.

"He that questioneth much shall learn much."—*Bacon.*

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST" ONLY *will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.*

IF AN INQUIRY FAIL TO RECEIVE ATTENTION *within two months, the correspondent should repeat it; if not then published, the inquirer may conclude that an answer is withheld, for good reasons, by the editor.*

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE CONTRIBUTIONS *unless the necessary postage is provided by the writers.* IN ALL CASES, *persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Anonymous letters will not be considered.*

STUDENT.—E. F. S.—You can unite both subjects, and the study of one will help you to a better understanding of the other. A knowledge of anatomy and physiology are indispensable to a good phrenologist, and one can not be a thorough physician without a good knowledge of Phrenology.

SENSITIVE ORGANS.—ALTO.—Highly-developed organs, particularly those in the part of the brain which is classified as the semi-intellectual, are very sensitive to impressions relating to their special function—Ideality, Sublimity, Tune, among these are very impressible. A delicate nervous organization, too, has much to do with the thrills which they experience who hear powerful music.

HALF-WAY DIET.—B. S. W.—Too much grease is used in the cookery you describe. You will perceive by some of the recipes which have been recently published, that very little oily matter is necessary in the way of shortening. The best results are procurable with little or nothing in the way of carbon. There is enough of that element in cornmeal as it comes from the mill; and one whose digestion has become enfeebled should be very particular in making cakes with cornmeal. She should use very little lard or butter or oil; a little milk is all that is necessary, beside the trifling quantity of butter or pure fat to oil the pan. Your friend should use very little salt. As for lard, she should not recognize it at all as part of her dietary. If she be in any way affected with scrofulous humors, she should eschew grease as she would calomel.

GEOGRAPHICAL QUESTIONS.—J. W. G.—If there be any increase of weight on the part of the earth, it is due to the fall of inter-planetary matter upon its surface. It is estimated by some observers that the amount of meteoric matter deposited in the course of a year is upward of two tons. Occasionally a huge mass comes hurling from the spaces beyond our atmosphere. Not long since a Western farmer, who had gone out very early to look after his stock, was struck dead by a piece of meteoric iron weighing upwards of two hundred and fifty pounds.

Your second question should be referred to a good veterinary surgeon.

As for your third question, with regard to chickens, we would advise you to keep those kinds which do not sit, like "Leghorns," "Houdans," "Black Spanish," etc. One trouble which we have found with such fowls is, that when we wished to increase our stock we were compelled to borrow a common hen from a neighbor.

COMBATIVENESS AND DESTRUCTIVENESS.—W.—The main distinction between these two organs consists in the first being defensive, and the second aggressive in its nature. Combativeness gives courage in sustaining one's individuality, maintaining rights, privileges, etc.; Destructiveness gives force, executiveness, determination in carrying into effect one's motives and purposes.

CONSUMPTION.—A. P.—Predisposition to pulmonary consumption may be inherited; but, in spite of that, we are of the opinion that if measures are taken early in life, the disease may be arrested and the health in a great measure, if not entirely, restored. If the inquirer be well on in years and the disease has indicated itself, and it be known to be an inheritance, we are of opinion that the most that can be done for her will be to prolong life, but not cure. She should eat good food—that which is thoroughly nutritious, and take abundance of air out of doors, avoiding, however, over-fatigue or excess. She should live in an atmosphere that is dry—a mountain region rather than a level country, and well away from the sea, say three or four hundred miles.

OCCUPATION AND LONGEVITY.—J. M. P.—Statistics show that the farmer lives longer than the merchant; but we are of opinion that the longevity of the former is much less than it would be if all lived in accordance with hygiene.

SODA.—N. D. C.—Carbonate of soda or any other preparation of sodium is injurious to

the organization of man. It is a mineral, with toxic or poisonous characteristics. To be sure, soda makes biscuit light and beautiful to look upon; but we are impressed that it deprives the flour of a large portion of its nutritious effect, in that it arouses an excitement in the digestive organs which is due to an effort on the part of nature to eliminate the mineral. Soda is often administered by some physicians to correct stomach derangement, acidity, flatulence, etc., and its use, when persisted in, weakens the digestive power, lowers the general tone of the assimilative function, and so is productive of dyspepsia. We believe there are many people who are suffering from one form or another of dyspepsia, induced by their taking soda as a stomachic correctant in early life.

RESEMBLANCE TO PARENTS.—Phrenologists often say of a person, that he resembles his father or his mother. By what indications is that fact known to them? What characteristics or qualities would be implied as belonging to a person by the statement that he resembles his mother for several generations back? Please answer in the JOURNAL.

Answer: We published on the subject of resemblance to parents an elaborate article, extensively illustrated, in the PHRENOLOGICAL JOURNAL in 1857. Since that time we reproduced the article in the ANNUAL, which is now bound under the title "Combined Annuals," price $2, and is a work which contains many other articles, equally interesting and important.

INSANITY AND HEALTH.—*Question:* Why does the body continue to grow in youth, when the mind is wrecked in insanity?

Answer: The examination of an idiot or a lunatic will show you that the health of the body, when the mind is feeble or deranged, is dependent upon the character of the insanity. There are a great many varieties of idiocy and lunacy. Physicians make a classification for convenience, which embraces three or four sorts of the first, graded according to the degree of imbecility. While of insanity, they distinguish three or four sorts, such as acute mania, or the condition of frenzy; mild or harmless insanity; melancholia or desponding, etc. It is the acute form which is particularly destructive to health; the subjects living in many cases but a few months if the disease persists. Phrenology makes its distinctions of idiocy and insanity dependent upon the organs of the brain which are defective or diseased. Some lunatics are cheerful and good-natured. They are the subjects of hallucination merely, one or two organs only of the brain being diseased. Others have an occasional spell of frenzy, which does not continue long, and for most of the time they are quiet and inoffensive. Such persons are likely to live long and have good health.

STARCHED SHIRT.—*Question:* Will a shirt starched and ironed and laid away be more likely to become weak and rotten, than if not so prepared?

Answer: If the shirt be properly laundried and put in a safe place, we think it would last just as long as one made of similar materials and unlaundried. It seems to us that the starch, unless a very impure article, should preserve the fabric. We do not, however, claim to be infallible on this point, and if there be any among our readers who knows, let him speak.

MENTAL TEMPERAMENT AND CHILDREN.—A. B. K.—The predominance of the Mental temperament in the organization of the child, gives it character for quickness of discernment, fertility of thought, and capability for learning. This fact is fully covered in the works on Phrenology and the Temperaments. Very young children, naturally organized, are more fond of physical enjoyment than of study. Growth is their chief vocation; yet the Mental temperament may be exhibited very early by a child's inquisitiveness and aptness to learn.

EASTER EGGS.—J. K. N.—The practice of using eggs on Easter-day is so old that its origin can not be definitely ascertained. It appears to have been in vogue as far back as history goes, with the Jews and Persians and other ancient peoples. It is altogether probable that the use of eggs at this spring-tide festival was symbolical of the revival of nature. The term Easter itself comes from the old Anglo-Saxon *Eastre*, the goddess Ostare or Eastre being the personification of morning, and also of the opening of the year or spring. The Anglo-Saxon name of the season was *Eastre Monath*, and it is still known in Germany as *Oster Monath*. Many of its observances by Christian nations were derived from the old pagan worship of the goddess Ostare. In the ancient Church the celebration of Easter lasted eight days.

IMPAIRED VISION.—A. J. K.—When the eyesight is obscured by a sort of lace-work or web seemingly before it, that condition may be due to two or three causes—a weakness of the nerve; a diseased condition of the cornea, as a morbid growth; or floating matter in the crystalline lens. The condition is serious enough for you to ask the opinion of a surgeon.

THE "PROBLEM OF LIFE."—P. H.—We have not had an opportunity to examine this work of Wilford, but we have received good reports of it from those who have.

Several ANSWERS *must be deferred to the next number.*

What They Say.

Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects, being preferred.

A CONFESSION.—About nine years ago I received my first idea of the existence of Phrenology—that is, of its practical existence. I was then fourteen years old, and attending school in one of the rural districts of Missouri. There were five scholars in the school who could not succeed in arithmetic, and they were all from the same family. The three eldest had attended the school one or two terms a year, as far back as I could remember, yet not one of them had mastered the multiplication table or ever solved and explained an example in long division. I noticed that their foreheads were very narrow, and that those who succeeded well in arithmetic had broad foreheads. I noticed, also, that the heads of the most peaceable and benevolent boys were high, and of the former narrow between the ears, while those who were "on the fight," as we expressed it, had broad, heavy-looking heads at the base. I told a friend of my discovery, and when I had finished he said, "You must be a natural phrenologist." He then explained what Phrenology is, and loaned me two books—one a work of Gall, the other of Spurzheim. I feasted upon these for some time, and was so much interested that I procured the "Student's Set," and devoted most of my time to the study of the great science of man, and the more I studied the more I loved it. It has done more for me than any other teacher, explaining many things that were mysteries before, and would probably have remained so otherwise. It made the Bible appear an hundred-fold more glorious and real than all my Sunday-school teachers ever did, and taught me not only what I am and the laws that govern me, but helped me to obey them.

I was left an orphan at four years of age, and my health had continued poor until I studied Phrenology. Phrenology has been a parent to me. At the age when a boy is most likely to fall, it was my guide, and kept me from forming unworthy associations, for by it I was able to tell who was worthy and who was not. When I hear a man object to Phrenology on the ground that it is at variance with the Bible, I know that he knows but little about the one and nothing about the other.

SAMUEL HURST.

MUSICAL TALENT—ITS POWER FOR ENJOYMENT.—On a moderately cold day in the winter of 1878, as I was passing an old, dilapidated log-house, which I had passed many times before and found to be lonely and desolate, I was surprised to notice that, on this occasion, it seemed to be inhabited by happy mortals, notwithstanding that its appearance and surroundings were of a character to impress the beholder with the idea that, if any persons lived therein, they must belong to the class of the sad and sorrowing.

To give the reader some idea of the destitution of the place, I will state that there were but a few sticks of wood in the yard; in the only sashless window hung an old garment, and in the doorless doorway hung a coarse blanket, swung back so as to close about half of the opening. Yet there were those inside of this desolate-looking house who seemed to be enjoying life to a good degree. Judging from the sounds and voices heard within, there were about six persons seated around an old-fashioned fire-place, two of whom were playing on well-tuned violins, while all joined their voices in a sweet, melodious song.

Had I passed this place after night without knowing how devoid it was of every indication of comfort, and had I heard the same sweet music and musical voices, I should have been impressed with the idea that it was the abode of comfort and refinement, as well as the home or temporary abiding-place of music-loving souls; but, as it was, there seemed to be pure enjoyment, and a good degree of soul-refinement, in spite of the lack of every other worldly comfort. Had I not been familiar with the principles of phrenological science, I might have said: "There can be no real enjoyment in such a place; they are playing and singing to drown the sorrows that burden their hearts."

As it was, I could realize truly how pure and deep is the joy a cultivated talent for music can afford in every stage and condition of life.

WILLIAM W. STOCKWELL.

EDUCATION AS APPLIED TO MARRIAGE.—If we could but commence life with the ripe experience that comes with mature years, unhappy marriages would be a thing unknown. Seeing that this is impossible, our next efforts should be toward finding out from what causes certain results ensue, and so enable the rising generation to avoid the rocks upon which so many lives have met shipwreck.

As the physician, in order to cure, must know first the source from whence a malady springs, and so apply his knowledge to the place where it is needed; so must the thinker, eager to save others from the mind-maladies he sees on every hand, seek earnestly to know where lies the root of the evil he is anxious to correct.

Much has been written regarding the sacred institution of marriage which, by errors in individual judgment, has served to aggravate existing evils. In educating the young in the knowl-

edge of the laws that govern our earthly well-being, we meet with opposition from the start. Let the sober reader take the question home to himself. How many pitfalls and snares, how much of physical suffering and taint transmitted to offspring might have been avoided had some kind friend spoken frankly and intelligently in regard to the truth we were destined to learn by bitter experience.

But there is a class of parents who, while admitting the truth as we have stated it, shrink instinctively from a task so distasteful in itself, fearing, perhaps, their inability to do so satisfactorily. We would not wish to call this false modesty on their part, for they have been educated to view the subject from that stand-point.

To such we would say, look the question fairly in the face; in the light of the experience you have seen, is there not deep cause for interest in this subject? Should the parent still feel unequal to what he may recognize as a duty, he can still have recourse to the minds of those who have studied the subject in all its aspects, weighing well their words before transmitting them to paper.

Love is acknowledged as the strongest power that sways the human heart. He that best loves his offspring will see to it that no safeguard of future well-being is left uncared for. In order to live successfully, we must first of all marry successfully, and failing to note this important truth has cost millions of ruined lives. Could we but see the motives from which spring so many deeds that shock our hearts and rouse our sense of indignation, how many might be traced directly back to an ill-assorted marriage. "But," says one, "Love is blind; how can we hope to govern or direct its movements?"

Here we take issue and reply, Love is far-seeing, Passion only is blind. There is a strange anomaly between the two as viewed by the majority of mankind, and though at first sight they may seem so much alike, investigation shows a wide disparity. Love waxes the stronger in the possession of its object. Passion, on the contrary, quickly fades into unconcern or merges into disgust. Love sees the virtues, and, attracted by them, passes lightly over the faults. Passion exaggerates the faults and is blind to the virtues. Love will but cling the closer to its idol though the world may despise and shun it. Passion at the first signs of impending storm leaves its victim to its fury. And yet the younger generation continues to take the two terms as having the same general character, and awakens to the truth only when it is too late. Therefore, we say, educate them in time; armed with the power to distinguish rightly, their reason will infallibly guide them to see the truth.

Love will ever be found able to withstand the severest test human agency can apply to it, but the baser Passion, in moments of calm reasoning, will stand revealed in all its deformity.

True love never dies. Unforeseen circumstances may sweep its object from its presence, but once kindled the spark remains. If not rekindled in this world it will be beyond, for God Himself is Love. As certain fixed laws govern the universe, so does a wise Providence endeavor to instruct us. We know well that animals of different habits and instincts are compelled to follow the laws of their being. Yet man, grand in the possession of his God-given faculty of reason, sees not the lesson that Nature intends to convey.

The familiar expression, "a cat and dog life," as applied to some ill-mated couple, is but a recognition of the principle we are striving to have noted. Alas! it exists to a far greater extent than the world at large ever think of. Pride, self-respect, or shame, interposes a screen between the abode of torture and a gaping public.

"A man is what his wife makes him," is an old proverb, and the reverse of this is equally true. In other words, to live happily they must exist on the same plane. It would naturally seem to follow that in the choice of a companion for life, no great disparity should exist in this respect. Let the reader, for instance, imagine the effect that would be produced upon a sensitive ear by a piano frightfully out of tune, for it aptly illustrates our meaning.

Love is claimed to be the law of contrast, but here again the popular judgment is at fault. Opposite tastes never serve to bring people together in unity; they must of necessity repel. The man of courage despises the coward. The man of honor has no sympathy with a rascal. On the other hand, we are drawn toward persons whose tastes are similar to our own.

Man was by nature destined to be a champion and defender of the weaker sex. Only folly and anarchy result from endeavor to reverse this rule. Women of tact born only of love, recognize this instinctively, and though sometimes evading it, always manage to appear to yield when in reality they have gained the victory. All men have a share of self-esteem born of the responsibility they feel. It is a part of their very nature, and rightly used brings joy and happiness to all around it. Man being therefore the stronger vessel, it would seem to follow, as a logical conclusion, that he should, in choosing a partner, select one with tastes similar to his own, though in a less marked degree. Especially should this be true in regard to the ruling principles of his mind. In other words, he should be one to whom the wife would naturally look up with respect, and not (as is too often the case) be the shivering victim of a curtain-lecture.

S. W. PEARCE.

Library.

In this department we give short reviews of such NEW BOOKS *as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor us with their recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.*

ADVENTURES IN PATAGONIA: A Missionary's Exploring Trip. By the Rev. Titus Coan, with an Introduction by Rev. Henry M. Field, D.D. 12mo, pp. 319. New York: Dodd, Mead & Co.

According to the terms of the introduction, the author is one of the most venerable of living missionaries, nearly eighty years of age, and has spent the whole of his ministerial life in the Sandwich Islands. Soon after embracing the ministry as his calling, he was sent to Patagonia, where he remained some months, exploring the country and studying the native tribes, with the view to determining the practicability of commencing missionary work among them. The field proving not as promising as he had been told, he returned home, and having married, set sail for the Sandwich Islands, where he settled permanently down to evangelical labors. Mr. Coan tells the story of his experience among the Patagonians in a simple, frank, yet lively style. Chapter IV. commences the record proper of his extreme South American doings, when on the morning of November 14, 1833, he found the whaler which had carried him from New York at anchor in Gregory Bay. The narrative is related in the order of a diary, as it were, from copious notes taken by Mr. Coan in the progress of his explorations among the wild people. Some memoranda are added to the account of later visits by travelers and scientific men to Patagonia; but the data concerning that almost desolate country are so few that Mr. Coan's reminiscences, although nearly fifty years old, have an entertaining freshness.

ALASKA AND MISSIONS ON THE NORTH PACIFIC COAST. By Rev. Sheldon Jackson, D.D. Fully illustrated. 12mo, pp. 327. New York: Dodd, Mead & Co.

We are pleased to announce this book to the reader, as we are of those who regard the acquisition of Alaska by the United States as a grand stroke of diplomacy, and one of the most brilliant events during Mr. William H. Seward's occupancy of the Washington State Department. The character of this vast Territory is graphically described by Dr. Jackson. Even far north, in the vicinity of Fort Yukon, the warmth of the summer clothes the land with verdure and flowers, and permits the gardener to raise a great variety of vegetables and fruits, while the southern regions—the Aleutian and Sitkan districts—offer to the colonist opportunities almost unsurpassed in any other country for agricultural, mining, and lumber enterprises. The ordinary maps do scant justice to the island wealth of the Alaskan waters. The great Alexander Archipelago, which extends 300 miles from north to south, and 75 miles east and west, contains over 1,100 islands. There are other groups of islands—the Kadiak and Aleutian being noteworthy. We are given many data from high authority concerning the resources of the Territory and its immense prospective value to the United States.

The efforts by missionaries to improve the condition of the natives of the Territory constitute the larger portion of the book. Such is the low moral state of the Alaskans that Christianity has a wide field there. Probably no other people can be found among whom women are more oppressed and degraded. In their behalf, schools and asylums have been already organized. At Fort Wrangell a Presbyterian mission was established in August, 1877, by Dr. Jackson and a lady, and it has done very much for the people of the region in which it is situated.

We commend the book to those who would have a realizing glimpse of this new and great section of our country, and to the philanthropical who would have the heathen Christianized.

THE FAITH OF OUR FATHERS. Being a Plain Exposition and Vindication of the Church Founded by our Lord Jesus Christ. By Rt. Rev. James Gibbons, D.D., Bishop of Richmond, etc. Sixth Revised Edition. Baltimore: John Murphy & Co.

This little volume is simple in style, but very winning in its method of presenting the principles of Roman Catholicism. It is a special plea, as indicated by the title, in behalf of the Church whose head is the Roman pontiff, and a comprehensive one, discussing Apostolical succession, Infallibility, the right to Temporal Power, Invocation of Saints, Sacred Images (in which the plea is weakest), Purgatory, the Eucharist, Penance, etc., and is generally characterized by frankness. The sectarian differences of Protestants are very strongly set forth, and made a premise for an argument in which unity and propriety are claimed for the Roman Catholic Church, and held up as conspicuous evidences of its superiority. The good Bishop does not state on which side intellectual enlightenment prevails more abundantly in this latter time; he makes no allusion to the perverting doctrines of Liguori, whose works so gratify the Pope that he has ordered them to be translated into French that they may be widely distributed; nor does he say to what extent the maintenance of the

Roman Catholic Church in America is due to Protestant enterprise and industry. In his strictures on the hasty marriages and unscrupulous divorces of the present day, he is not a whit too severe.

SIXTY-FIRST ANNUAL REPORT of the Trustees of the New York State Library for the year 1878. Transmitted to the Legislature, January 21, 1879.

This is an unusually interesting document, containing, as it does, in the elaborate report of the librarian, a deal of information concerning the libraries of Europe and the United States, and many excellent thoughts on the care of public libraries, the character of books needed, and the special wants of the Albany library. From 1855 the number of volumes has increased rapidly, there being now over 103,000 with 50,000 pamphlets.

PUBLICATIONS RECEIVED.

FAITH A RESPONSIVE CHANT. By Samuel Main Sawyer. Washington, Ind.

OUR HOME. A new monthly publication for the family, issued by Messrs. George H. Bradworth & Co., of New York. The first number promises well. Thirty or more pages are filled with a variety of reading matter relating to housekeeping and fashions, fancywork, social amusements, and miscellaneous literature. Price $1.00.

THE ORIENTAL AND BIBLICAL JOURNAL. We welcome the first number of this candidate for public consideration, which will be issued quarterly, and is edited by the Rev. Stephen D. Peet, of Clinton, who is well known in biblical and archæological research. Messrs. Jamison & Morse, of Chicago, are the publishers. Although technical in character, its matter is edited in a popular style. The number now at hand is quite rich in varied information, and very readable from beginning to end. Price $2.00 per annum.

PURE WINE, FERMENTED WINE, AND OTHER ALCOHOLIC DRINKS in the Light of the New Dispensation. By John Ellis, M.D., author of "Avoidable Causes of Disease," "An Address to the Clergy," etc. Here is an additional contribution to the literature of Bible wines and temperance, written by a physician of experience and an author who is deserving of attention.

HARPER'S NEW MONTHLY MAGAZINE;

HARPER'S WEEKLY JOURNAL OF CIVILIZATION;

HARPER'S BAZAR; and

HARPER'S YOUNG PEOPLE.

Current numbers of all these publications have been received. The *Magazine* for May appears to us to be specially noteworthy among recent issues, both on account of its matter and the excellence of its illustrations. We are pleased also to mark an improvement in *Young Folks*—that improvement consisting in its having of late reading matter of practical utility, as well as entertaining to its youthful readers. We can make this statement of but few juvenile publications now so widely distributed, as nearly all seem bent on being funny without regard to sense.

THE STANDARD SERIES. Ruskin's Letters to Workmen and Laborers. From Fors Clavigera. Parts 1st and 2d. Complete. Price 15 cents each. Messrs. I. K. Funk & Co., publishers, offer to Americans a cheap opportunity for reading Ruskin's views on labor questions. Scarcely an English writer can be named who shows more attractiveness of style, while, at the same time, he has a vigorous and original way of asserting himself.

PERSONAL.

ERNEST RENAN was lately invited to lecture in Westminster Abbey, and telegraphed across the British Channel the subject. The subject, as written by him, was "The Influence of Rome on the Formation of Christianity." According to the Rev. Jos. Cook, it was published in England as "The Influence of Rum on the Digestion of Humanity."

SARA BERNHARDT, the French actress, appears to be getting out of favor with the Paris public, and on account of her success in England shows a disposition to come to America. She would probably suit the crowd that waits on the walking-matches and concert-saloons; but we hope we echo the sentiment of the educated classes in saying that actresses of her notorious immorality are not wanted here. There are already a sufficient number of public performers among us whose influence is bad.

THE Rev. Dr. Samuel Osgood, one of the best known clergymen of New York, died suddenly, April 14, in his house No. 154 West Eleventh Street, after a sickness of thirty hours. He was born in Charlestown, Mass., August 30, 1812, and educated for the Unitarian ministry. Very early his eminent abilities were recognized, being in 1849 called to the Church of the Messiah in New York city. He was connected with that church for twenty years, and then withdrew from Unitarianism to enter the Protestant Episcopal Church. Besides his ministerial work he performed a large amount of literary labor, publishing several volumes, acting as editor for two or three religious publications, and contributing frequently to leading periodicals. His latest public work was the delivery of his paper on "Channing" before the New York Historical Society. He was a man of imposing presence, his manners being precise and courtly, and his conversation impressed the hearer with a sense of his culture and familiarity with the subject under discussion.